

EMPLOYEES' MAGAZINE

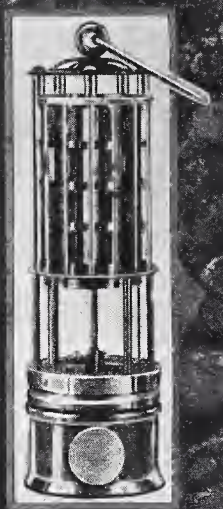
The Union Pacific Coal Company.
Washington Union Coal Company.



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NOVEMBER, 1927



New Dodge Sedan Sets New Standards of Performance and Beauty

New standards of performance and beauty are to be found in Dodge Brothers latest sedan, introduced July 17 as the first body type in an entirely new line of four cylinder cars. In presenting this sedan Dodge Brothers have come to the fore with a car so new and so advanced in engineering features that it has been accorded a most enthusiastic reception by the public. Orders for approximately \$3,250,000 of the sedan were received within two days after it was introduced and since that time business has been so great that production has been increased.

The new car is advertised as the fastest four in America, giving mile-a-minute performance with surprising ease and smoothness and acceleration from 0 to 25 miles per hour in less than 7 seconds through gears. So great is the power of its engine in relation to the weight of the car that it is never forced to labor and is, therefore, free from the roughness and pounding that result from strain.

Steering and parking ease have been accomplished by placing ball bearings in the steering spindles as well as in the steering gear itself. The car will make a full turn in a 38-foot street.

Springs on the new car are exceptionally long, constituting over 85 per cent of the total wheel base. This gives it the longest spring base of any car selling for \$1,900 or less.

The body construction is not only remarkable for its rounded beauty but for its high quality and strength. It is the one car selling for less than \$1,000 which has a full metal roof rail and belt moulding integral with the body.

In the de luxe sedan long lines, blended curves, perfect proportions and smart coloring combine to create an impression of beauty such as few light cars ever achieve.

The interior is done in expensive mohair, with roller curtains, head linings and carpet to match. The windows are of the latest French style, glazed with genuine plate glass, and such fixtures as dome light, door handles, window regulators and robe rail are heavily nickel-plated. The unique instrument board features a 75-mile speedometer and is finished in the new "crinkle" effect.

In line and proportion the standard sedan duplicates the de luxe sedan, differing only in coloring and equipment. It is designed for an all-purpose car of great utility—fleet, staunch, durable, beautiful.

It is finished in durable lacquer, the rich colors being permanent in all climates. The interior is upholstered in leather and is proof against wear for several seasons of hard use.

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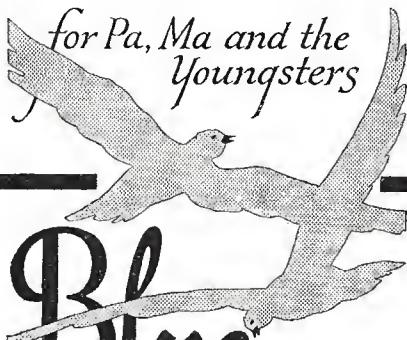
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THE ANGELUS

Painted by
JEAN FRANÇOIS MILLET

1

IN PRIVATE COLLECTION,
PARIS

EMPLOYEES' MAGAZINE

THE UNION PACIFIC COAL COMPANY

WASHINGTON UNION COAL COMPANY

VOLUME 4

NOVEMBER, 1927

NUMBER 11

The Angelus

Painted by Jean Francis Millet in 1859.

THERE are so many pictures that carry a particular relationship to our thinking this month, that come to mind when we think of Thanksgiving day, pictures of the Puritans by Boughton, pictures of home, so many of them; the beautiful painting "Autumn"—but we could scarce approach this the second last month of the year in which we've carried these monthly studies without remembering that we must sometime ask ourselves to look more carefully at this very familiar painting by one of the two great artists who painted peasants—"The Angelus" by Millet.

These two artists who painted peasants were Millet and Jules Breton. One was realistic, the other idealistic. And here we shall break a rule we'd made that we would confine each study to the picture before us refraining from comparisons, a usual method of illustration, and refer to Breton's "The Song of The Lark," the original of which hangs in the Chicago Art Institute and which our General Superintendent once told us he well remembered having been taken to see when he was quite little. A fine picture to take a child to see since it is a singularly happy one. And so well known that we may use it as an illustration of Breton's picturing of an idealized peasant, full of energy, grace, vitality and joy and compare it with the peasant as Millet pictures him, worn, patient, steadfast, but overwhelmed with toil.

Millet painted peasants as he knew them. And he knew them most intimately since he was himself peasant-born. But his habitual picturing of a realistic peasant only makes our study the more wonderful, as it makes us forget the toil and bow here with these toilers as they hear the angelus.

The Picture

LET'S look at it—"The Angelus." We see the spire of the church at Chailly from which the

sound of the bell comes to this far-off field. The day's work is nearly done. The man and woman have been digging potatoes, perhaps the man uncovered them while his wife put them in the basket. The sky is tinged with the glory of the setting sun, the green fields are softened by the approaching twilight. All the air seems still and full of quietness of sound and color. Then the man drops his fork and uncovers his head and his wife clasps her hands devoutly before her. And we hear with them and the artist the bell toll out the music of the angelus,

"And the word was made flesh
And dwelt among them."

And again we have a picture to which only the years have brought proper recognition. It was painted in 1859 but the patron for whom it was done would not accept it. For a long time no one wanted it. It sold originally for five hundred dollars, but thirty years later a wealthy French collector paid more than one hundred thousand dollars for it.

And today in hundreds of thousands of school rooms and homes, in many lands men and women stand before this picture in quiet admiration, their spirits quietened by its message.

The original is still in the Chauchard collection, Paris.

We are happy to have found this poem of Lord Houghton's, his description,

Against the sunset glow they stand
Two humblest toilers of the land,
Rugged of speech and rough of hand,
Bowed down with tillage;
No grace of garb or circumstance
Invests them with a high romance,
Few thousand such through fruitful France,
In field and village.

The Employees' Magazine is a monthly publication devoted to the interests of the employees of The Union Pacific Coal Company and Washington Union Coal Company, and their families, and is distributed to employees free of cost, subscription price to other than employees, \$1.50 per year.

Articles of interest to our readers, photographs and sketches suitable for reproduction, are solicited and should be addressed to Editor, Employees' Magazine, Union Pacific Coal Company, Rock Springs, Wyoming.

Jessie McDiarmid, Editor

Oh lowly pair! you dream it not
 Yet on your hard unlovely lot
 That evening gleam of light has shot
 A glorious message;
 For prophets oft have yearned and kings
 Have yearned in vain to know the things
 Which to your simple spirit brings
 That curfew message.

— — — — — enough for us
 The two long figures bending thus,
 To whom the far off Angelus
 Speaks of Hope and Heaven.

The Artist

JEAN FRANCIS MILLET was born in Grenville, a little village in northwestern France in 1814. He was the second in a family of nine children. His parents were peasants and his mother worked in the fields so the care of the children fell to a devoted old grandmother.

When only a small boy Millet went to the fields with the others where he could always see the beauty in the things about him, a trait his father fostered by calling his attention to new beauty or aspects. He would say perhaps, "That's a beautiful tree. See the golden sunset."

From earliest childhood, too, he loved to sketch and used to tell his father he'd like to be an artist. To the father this was both a joy and a sorrow. A joy because he, who had himself wanted to be an artist, rejoiced in each new evidence of talent and a sorrow because he could not afford to send his son away to study.

However, Millet had an uncle who was a priest and he did what he could to give the boy a start in learning. He taught him to read Virgil and finally persuaded his father to take the talented lad to Cherbourg to study.

Francis took a lot of his sketches with him and was encouraged to stay and begin study in earnest.

He stayed in Cherbourg until his father's death when he thought it right to go home and do the work his father had always done. His mother and grandmother however, sent him back to his art and that he appreciated their sacrifice for him is shown in his statement as he labored over a sketch he'd made of his grandmother, trying to perfect it: "I'd like to paint her soul."

Then through help given him by the town council of his own home, he went to Paris, the center of art instruction for France. He meant to enter a school at once but could hardly tear himself from the Louvre, the great pictures he'd longed to see. Then he went to the studio of Delaroche since he liked his work best. His fellow-artists were not too kind and called him "the man of the woods." Delaroche liked him but didn't understand him very well. Millet was soon dissatisfied with his own progress and even with his master's work which seemed to him artificial, untrue. He knew nothing of the classical figures the master painted and wished him to paint. His heart and mind were back in Gruchy among the scenes of his boy-

hood, the peasant life he knew. He and a friend withdrew and started a studio of their own, living from hand to mouth—but always working and studying, doing advertisements, sign painting to help pay their way. Eight years went by in this way, years of struggle and work, Millet having married and increased his needs. We are told that he was tempted to give up his studio and go home to be a farmer. Instead, however, he went to live at Barbizon, a little village on the edge of the beautiful forest of Fontainebleau and continued painting.

He disliked city life, feeling it full of shams, and liked simplicity. He was asked to paint more saleable subjects but preferred to paint the country folk of his early home. He said, "As a peasant I was born, as a peasant I shall die. I will say what I feel, paint things as I see them."

Gradually many artists who held the same ideas as Millet gathered at Barbizon, among them Rousseau and Jacque. Together the colony of friends worked.

When success finally came to Millet it came rapidly and his pictures sold for large sums. Honor was bestowed upon him freely and even the government gave him a commission to paint a series of historic pictures for the Pantheon.

He died in 1875 and is buried beside Rousseau in the little churchyard of Chailly—these two friends, illustrious in fame now, the one who pictured the beauty of the landscape, the other who has made immortal the simple faith and honest labor of the peasant.

The Job

By John Lee Higgins

The little poem reproduced below is from a four-page sheaf of verse published as "Pasque Petals," at Aberdeen, South Dakota. Tragic in tone, it contains a plea for consideration that cannot be ignored.

For many years he worked in this one place,
 Till fifty winters whitened in his hair;
 And then they dropped him neatly with a phrase
 That made him dumb, and he could only stare.

So steady was the work that he forgot
 To think of any change, it was his life
 As much as bread, and now he felt a blot
 Was on his pride—he could not tell his wife.

He asked that they would keep him without pay,
 And so they gave him something more to do
 To humor him because he was so gray;
 But soon they said that this was ended too.

Yet every morning at the opening hour,
 Along with all the others he will come
 Up to the doors, to slink away and cower
 Till closing time when he will hurry home.

And secretly on pay-day he will use
 Enough of meager savings of the years
 To equal his small wages, lest he bruise
 The one at home that must not know his fears.

RUN OF THE MINE

The 1927 Mine Suspension

THE impasse between the Mine Workers of America and certain bituminous coal operators located in the Central Competitive Field and the Southwestern District, which took form April 1st last, ended with a truce made between the Union and the Illinois Coal Operators' Association on October 1st. The agreement made in Chicago provided for the operators reopening their mines on the old basis, a joint committee of two from each side to be organized immediately, and the "said Joint Wage Commission shall with all diligence apply itself to such task and examine into, consider and report on the demands, claims and contentions of the operators and the mine workers without prejudice or restriction. The Commission shall report in writing its findings and recommendations to a joint scale meeting of the parties hereto to be held in Chicago, February 1, 1928, and its report shall become the basis of the ensuing wage agreement. The Commission will formulate its own rules and methods of procedure and will organize its work promptly and hold frequent meetings. To facilitate agreement upon disputed points the Commission may enlarge its number to five, in which case a majority vote will be binding."

During the suspension, which lasted six months, the mines in Michigan, Wyoming, Montana and Washington, working with the Union, continued at work, as did many scattering properties in the Central Competitive Field.

The success of the Joint Committee hangs absolutely on the attitude with which both sides attack the very grave problems which confront the Unionized coal fields. To the credit of the coal operators it can be said that their authorized public pronouncements have been at no time incendiary; on the other hand, much bombast has been put out by certain Union officials, all of which will fail of effect in the face of the absolute fact that as conditions now exist, the Non-Union mines can absorb the existing freight differentials and yet outsell the Union mines in the common market. There is sharp contrast between the utterances expressed by President John L. Lewis on the occasion of the signing of the Chicago agreement and those given out to the men through the extravagant, trouble breeding proclamations of certain state officials. Mr. Lewis among other things said:

"In making this agreement we have sought to effectuate a truce in hostilities, where each side will refrain from any overt act towards the other while they employ, as is most desirable, a genuine spirit of intelligence, on both sides of the matter, and a demonstration of proper remedies which it is within

the purview of our minds and collective judgment to do."

Then as if to undo the efforts so strenuously sought for to find a sane solution of the situation, state officials with their minds, not on the welfare of the men and their families, but instead on the task of "keeping their own jobs" poured out through the medium of circular letters and the columns of labor papers, streams of high sounding balderdash, including references to the "victory achieved," "loyalty and courage despite intimidation," "our courageous membership," "the sacrifices made by our wives and families," etc. After reading a few columns of this kind of stuff which was "boiler plated" and sent out to all the so-called labor papers in the country, it is refreshing to read the calm, constructive statements made by William Green, President of the American Federation of Labor, and an ex-miner, who speaks for the "substitution of statistics for strikes," "with Unionism moving on toward a position of greater strength, one compatible with industrial peace." The destiny of the Union, which has done much for the mine worker, is in his own hands, and the next few months will tell the tale. The mine workers deserve a fair wage, even a liberal one, but sentiment will not provide the cash requisite to meet a pay roll, and unless the operator can get back at least as much as he pays out, why "the engine goes dead." The Central Competitive Field has hundreds of "stalled" coal mines on its hands a month after the temporary settlement was made.

There is real tragedy in the stories published of the parades and impromptu celebrations which took place in the small mining towns of Illinois when the news came that an agreement had been affected; miners and their families, with the merchants who had carried their store accounts, joining in the march, while the whistles blew and the fire and church bells were rung. The tragedy came in the days following when it was seen that there was no market for the coal that both sides were so anxious to get out, but which could not be mined and sold against the eighty-cent screenings or dollar and thirty-five cents mine run coming in from lower cost fields. The Governor of Ohio "hit the bull's eye" a few weeks ago when he said, "the real issue is one of economics and not Unionism or Non-Unionism, the way out can only be found by working together."

A wage contract, however won, is an empty vessel unless the chance to work under it is provided, and that will fail of coming to many a good worker north of the rivers as long as coal mined in Non-Union mines sells for the price it is today offered for. The Commission offers a way out which should

have been provided for at the Miami meeting; that however is water over the dam, the real question now at issue is: Will it function to the end that business and opportunity for employment is restored to the Unionized mines? Perhaps the most effective first step that could be taken would be that of muzzling the vociferous element regardless of the side it thinks it is on, but which it is really working against. With this job done the Committee should take up the greater problem of regaining for the Unionized mines the business they have lost, and while wage modifications perhaps should and must be made, even greater results will flow from an "honest to God" desire to work together for betterment.

Mine Safety Versus Railway Safety Progress

DURING the period covered by the five calendar years 1916 to 1920, inclusive, the death rate per one thousand 300 day workers in all American coal mines was 4.03; for the succeeding five years, 1921 to 1925, inclusive, it rose to 4.58, an increase of 13.6 per cent. During the same period the fatalities per one thousand 300 days workers was, for the British mines, 1.13; for Belgian mines 1.00; for the mines of France, .97; for those of Prussia, (not so good) 1.86.

The accident record of our American railroads is computed on the basis of "million man hours worked" and includes all accidents, fatal and non-fatal. The Union Pacific System Lines have shown a decrease in casualties from 7.87 in 1923 to 4.73 in 1926, approximating a reduction of 40 per cent in three years. There are no juggling of railroad figures, the results are actual and it is not unfair to ask why the same progress cannot be made in our American coal mines, bituminous and anthracite. Will some one who knows submit an answer to this very important question.

Our Economic Trend

FROM 1898 to 1920 this country, with much of the world, passed through a period of rising prices, wages and commodities, all moving upward. That there were some peaks and valleys encountered on the journey is true, but as dollars became more plentiful, prices climbed. Since 1920 prices have gone the other way, history repeating the changes experienced after the close of the Napoleonic and Civil Wars. The shift toward lower prices occurring today is being brought about by lower production costs plus a system of transportation such as the world did not dream of seeing fifty years ago.

Reduced production costs are being made possible by the genius of men, who developing newer processes, have multiplied and cheapened production by the almost universal use of electric power

and by the substitution of machines for hand labor. Then there is another element, one perhaps equally potent, the spirit of co-operation that has grown so rapidly of late into our industrial life. During the war Herbert Hoover, then Food Administrator, asked all America to save a spoonful of sugar, to use certain food substitutes, in order that the millions of soldiers under arms might have the best and that the additional millions of dispossessed peoples of France, Belgium and other countries might be fed and clothed. With one hundred million people working to a given end, the stock of supplies mounted up and every demand was met.

That the lot of us who live in America is a happy one when compared with even the best of Europe, where hundreds of thousands go to sleep hungry, only to arise and go about their depressing tasks, their hunger still unsatisfied, no one will question. Asia with its teeming millions that drift through a miserable, diseased and undernourished existence, is too far remote for comparison. Who will, however, deny our right to continue to move forward, to gain additional comforts, to enjoy more luxuries, providing we earn such by the further application of inventive skill, carefully co-ordinated management and individual interest and industry.

Much is said and written about wages, which in the last analysis are merely the yard stick used to determine the individual's share of the good things he has helped to produce. As prices go down our buying power increases, and that means more comforts and more luxuries, and it is to the millions who produce that the manufacturer must look for a market.

Speaking of Management

AT CERTAIN recurring intervals, nations speaking through their citizenship reach the general conclusion that management expressed through government is a superfluous function, and either a few leaders are strung up or backed up against the firing wall, or in more civilized countries sent back to private life. We will even agree that this last form of punishment is desperately hard on men who have a passion for office.

In the conduct of lesser business affairs, such as the operation of a few coal mines, a factory, or a merchandising business, we frequently find managers who seem to think that once under way, a business will run itself, and so they begin to absent themselves from their tasks, taking perhaps long and frequent vacations, coming down at ten, staying out for two or three hours at noon time, thereafter suffering a bored hour before leaving for the day at say, four p. m. This type of manager may be but "ten years from shirt sleeves," but memories bulk but slightly in the affairs of many people and loaded down with self-centered thoughts, this type of man is frequently too busy with his own dreams to give much serious thought to anything as prosaic as business. However the majority of governments

and the men in charge of business affairs do see the necessity for a very active well thought out plan of management, and so the world rolls on.

The present age is a changing one, in no other day have changes taken place so frequently nor so rapidly. For example, about the time that the makers of the cottage organ had completed their plans to put an instrument in every home, the style in pianos changed from the old square to the upright, and the organ business went crash. Later the victrola type of reproducing instrument entered the lists and the piano with its richly embroidered cover became a support for photographs, ornaments, etc., and the jazz era with the Hesitation, Charleston and many other freak dances came crashing in. With the factories working overtime to make both machines and records, the radio next came in, and thus without warning the talking machine "took the count." But the men who built the reproducing machine business, the Victrola, Columbia, Edison, and a host of others, are not even thinking of quitting; instead they will make a combined record and radio machine, or a radio pure and simple, keeping their business intact, providing work for their employees.

The real manager not only changes with the times, but with a vision that is frequently quite marvelous. He anticipates the trend of events, actually beginning the shifting process long before the day comes. This type of man takes not only the time to keep up with his routine business affairs but, in addition, his door is always open to the fellow employe who has an idea, who is trying to do his part to make the business successful.

We Sow What We Reap

FOR generations past, more or less violence has marked the path of labor in its struggle for betterment. When strong men "see red" they are prone to do many things which they keenly regret in their more composed moments and truth compels the statement that many past revolts of labor were, in a broad way, justified; the laws of three generations gone were not always poor men's laws. Labor controversies have to a greater or lesser extent, even quite recently, been punctuated with violence which at times, as for example in the 1894 railroad strikes, and in later days in the coal mining troubles of Alabama, Colorado, Kentucky and West Virginia, reached serious proportions. The high tide of brutal murder was however not reached until the Herrin atrocity of June, 1922, occurred, when twenty-five men were shot to death, under the most tragic and merciless circumstances. Then came a still greater tragedy, the great commonwealth of Illinois with its eight million people, its courts of justice and its police power, failed of the conviction of a single murderer. From that fateful day in 1922 the strength of Union organization has waned, the shadow that fell across Calvary nineteen centuries ago, touched

and blighted Southern Illinois and the men who perjured themselves, to save the Herrin murderers. It is always so, the law of compensation never fails to work and there is something lodged in the mind of man that cannot be gotten rid of; the love of fair play, of justice, of order. No man or set of men can still the small voice we call conscience, and since that shadowy day at Herrin the combined conscience of America has agreed that lawlessness must be stopped at the beginning, and the decision of the United States District Court rendered at Pittsburgh a short time ago, together with many less sweeping court orders, are merely the outward expression of what is in the minds of the American people.

If labor is to get its just dues incendiary mouthings, violence of whatever character and all attempts to ignore the real economics of every situation, must yield to more intelligent handling. There are plenty brains in the ranks of labor to bring this situation about if the men who really work with their heads will take control. Leaders there must be, and there are many good ones, with an unfortunate and definitely vocal mixture of those who are harmful.

Mine Work and Merchandising

IN CERTAIN portions of the United States company stores are maintained not so much for the accommodation of employes as to secure substantial profits. In the good old days which so many lament, the man who failed to trade not less than sixty per cent of his monthly pay in the company store, was not wanted. The more the man spent in the store the better he stood with the foreman; if his purchases fell below a certain point he received a hint, and perhaps thereafter his turn was reduced, or he was given a place where his earnings suffered. This situation was quite like the "tommy shop" abuses that existed in the British mining industry in the forties.

The Union Pacific and Washington Union Coal Companies operate seven stores, all of which are primarily maintained for the convenience of our employes. In no instance is any outside influence directed to the enforced sale of merchandise to employes. Our store managers are expected as business men to depend on price, character of service, and individual salesmanship capacity, to sell. No restrictions are placed on other merchants, even so called wagon peddlers selling to our employes, even where the mining village, as is the case at Cumberland, Reliance, Winton and Tono, is located wholly on company lands. Our managers of stores are given the widest opportunity to buy in the cheapest and best markets, and the prompt payment of our bills enables us to obtain the lowest possible price, with cash discounts, a condition that is further helped by the large volume of our purchases.

During the year 1926 our Wyoming employes,

together with non-employees, who make up a large percentage of our customers, made purchases totaling but 21.3 per cent of the mine pay rolls; the total sales at Tono were but 28.3 per cent of the pay roll. Deduct the outside sales, and the ratio of sales made to actual workers to the mine pay rolls would be much less than the figures quoted, and yet we are doing very well. Our store managers are good business men, we would not want them if they were less and they like to sell goods; a good month is quite as satisfying to a perfectly human store manager as it is to a good mine worker. Our stores supply the needs of many of our men when they need help, and within reasonable limits that is part of our business, but neither company operates mines to sell goods, on the other hand they sell goods in order to make mine operation easier and more successful. We have many competitors, all doing their best to sell their goods; they are without exception good citizens and good merchants. Doubtless both outside and company stores are tuned up in turn by each other, and it is the mine worker customer who profits by this very healthful condition. Sales make for lower prices and higher profits, a store in that respect is just as susceptible to short working time as a mine and if our stores do not keep what you want, "tell the man." He is there to serve and likes to give service. If you can buy cheaper or better goods elsewhere do not fail to tell him about that. Even our very excellent store managers develop "carbon in their cylinders" occasionally.

What It Costs to Kill and Injure In New York State

THE Motor Vehicle Bureau of the State of New York recently presented a statement covering accidents occurring to persons in New York State for the six months' period January to June, inclusive, 1927.

The total number of persons killed by automobiles in the six months' period was 921, of which 289 were children. The total number injured was 35,467, of which 8,869 were children. As a punishment for death and injuries inflicted, 645 licenses were taken away from intoxicated drivers, 60 were taken up for reckless driving and 85 for speeding, and the fines collected totalled \$156,759.67, equal to \$4.31 for each person killed and injured.

The motor license fees collected during the six months totalled \$28,920,401.10, so by way of comparison it may be said that while it cost the motor vehicle owners of New York State \$74.48 in license fees per person killed and injured during the half year, those who drove paid an average of \$4.31 in fines for each individual killed and injured. This looks like pretty cheap killing and maiming. Is it any wonder that automobile accidents grow in number and severity?

Four More of Our "China Boys" Leave For Home

FOUR good upstanding "China boys," Ah Jim, age 65; Ah Him, age 62; Ah Chee, age 60; and Ah Bow, age 63, will say goodbye to Rock Springs and their Wyoming friends early in the month, the tentative date for their departure set for November 7th.

Ah Jim and Ah Him entered the service of The Union Pacific Coal Company in 1882 and were in Rock Springs when the 1885 riots occurred. Ah Bow came in 1892 and Ah Chee in 1894. The Old Timers will sail from San Francisco on the Steamer "President Pierce," November 11th, stopping at Honolulu on the way. After arriving at Hong Kong they will reship for Canton on a coast-line steamer and thence go inland to their old homes.

These faithful Old Timers will be given a cash endowment and a new outfit of clothes, as well as transportation and subsistence enroute, and "Happy" Harrington, who knows every man employed by the company, likewise speaking "plenty good Chinese," will accompany the party to San Francisco, and thereafter show them the sights, waving them a last goodbye.

Rock Springs, which owes much to the Chinese workers of days gone, will wish to give these four Old Timers the same cheery goodbye given the nine "China boys" who blazed the way in November, 1925. The full story of their departure will be published in the December Employees' Magazine.

Reverend L. R. Hosford

Reverend L. R. Hosford, who writes for us the short message reminding again of the national religious history of Thanksgiving Day and of the contribution to the mosaic



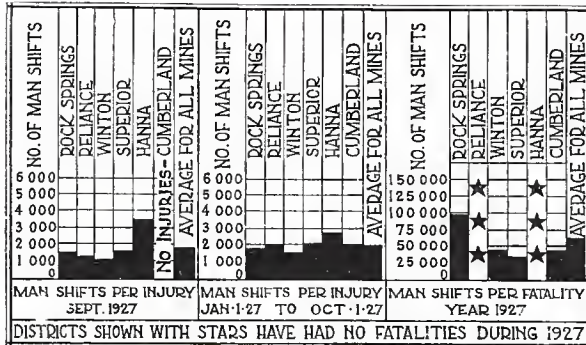
Reverend L. R. Hosford, Pastor Congregational Church, Rock Springs, Wyoming.

of American religious thinking to American character made by the stern Puritans who prepared the first American Thanksgiving feast from the fruits of their first harvest, has recently come to Wyoming to be pastor of the Congregational Church, Rock Springs.

He comes from the University of Nebraska where he taught in the English Department and later from Iliff Theological College, Denver, in which city he also taught music and interested himself in civic and religious musical festivals.



September Accident Graph



Figures for September indicate one less accident than for the preceding month, but, owing to the greatly increased number of man shifts over August, the total for September is much better, although far from what it should be.

During September there were twenty-six accidents reported, one of which was a fatality at Superior. There were 46,632 shifts of labor performed during the month, which makes an average of one accident for each 1,794 man shifts, a figure considerably below the average for the year.

Cumberland had the best record for the month with no injuries reported, while Winton presents the poorest record with six accidents and 6,077 man shifts, an average of 1,013 man shifts per injury.

While the accident rate has increased considerably the past two months, our record is still much better than for the corresponding period of 1926. To date in 1927 we have had six fatal accidents and 151 non-fatal accidents, and for the same period in 1926 the figures were eight fatalities and 186 non-fatal injuries, the man shifts for the periods being approximately the same.

While these figures are encouraging in that they indicate that we are making a gradual improvement, they still are far short of what they should be, and show that there is still much to be done. Our accident records show conclusively that it is the individual thoughtlessness and carelessness that is causing the majority of our accidents and that our injuries are due to the man rather than the system.

This class of injury can only be eliminated by the thought and care of the men, themselves, each working as a safety committee of one to reduce the accident toll to a minimum.

Tono First Aid Team Voices Its Thanks

Please allow the First Aid and Mine Rescue lads from the "big sticks" to thank, through the Magazine, those responsible for our recent trip to Rock Springs, Wyoming.

We certainly enjoyed every moment of the trip, not alone while at Rock Springs but from the moment we had our equipment packed and all entrained until arrival at destination. True, some of the country traversed is barren, but the contrast between it and that of our section

was not, for the moment at least, displeasing. Then there was to us the newness of scenery and vastness of country, with its constant changes from rolling lands to towering hills and mountains, with here and there a fertile valley, most likely set off by a nice little town.

Our stop-over at Salt Lake City was most delightful, for there we visited all of the principal places of interest, including, of course, the world famed Mormon Tabernacle, where we listened to a splendid organ recital on that equally famous instrument.

We desire particularly to thank Messrs. McAuliffe, Pryde, Dickinson, Hicks and Smith for their interest in our welfare. These gentlemen did not allow us one dull minute during our stay. We were very much interested with the trip into No. 8 Mine, Rock Springs, for there we witnessed what indeed was a revelation to us, the scraper and Eickloff mechanical loading apparatus in operation. What a change from the No. 2 scoop! We also desire to thank the boys of all the competing teams for the general good feeling extended toward us.

The memory of the entire trip, including our most cordial treatment at Rock Springs, leaves us with pleasant and lasting impressions.

FRED PONTIN
DAVE GILFILLAN
JOE MOSSOP

B. A. PETERSON
J. H. PATTERSON
GEO. WIGLEY

September Accidents

Miner—FATAL—Was struck on leg by a small fall of coal causing simple fracture of leg. Suddenly, the next day, miner died, probably due to a cerebral embolism.

Driller—Was drilling hole. Drill twisted and he was struck in face, bruising jaw.

Electrician—Was injured when he fastened safety belt into pliers clip on belt instead of ring. The clip, not being strong enough to support his weight, broke, allowing him to fall about 17 feet to ground; sustaining fractured arm, and injuries to foot.

Car Dropper—Was changing cars at tippie. He stepped off car and in some manner turned ankle, spraining same.

Inside Laborer—He attempted to couple some cars and was squeezed about the shoulders and chest.

Miner—As he was removing prop that was too close to track piece of coal fell from rib, lacerating finger.

Machine Man—Was struck on shoulder by jack-pipe when top coal fell, allowing jack-pipe to fall, fracturing left scapula.

Timberman—Was carrying prop to face of room, when in some manner he dropped it, bruising foot.

Miner—Following blasting, he had failed to trim down loose coal that had been left by shot. While loading, a piece of loose top coal fell, causing a scalp wound.

Inside Laborer—Was assisting other workmen to re-rail a car. His foot was caught by car, badly bruising ankle and instep.

Loader—Was lifting a large piece of coal on car. His hand was caught between car and coal, bruising fingers.

Machine Man—Was standing in front of machine in room-neck. Rope rider dropped an empty car into room

(Please turn to page 378)

Questions and Answers for Mine Foreman and Fire Boss Certificates

(The following are the questions that were asked applicants for certificates at the recent examination held in Rock Springs by the State Coal Mining Examining Board. Answers to questions are taken practically without exception from "Examination Questions for Certificates of Competency in Mining" published by the International Textbook Co. of Scranton, Pa., and are given, as these answers were accepted as correct by the examining board.)

These questions to be continued in the magazine from month to month until the complete list has been given.)

Ques. 1—How many cubic inches are contained in a cylinder 18 inches in diameter and 36 inches in length?

Ans.—Capacity of cylinder equals the area of the base, $.7854 \times 18^2 = 254.47$ sq. in., multiplied by the length of the cylinder;

$$254.47 \times 36 = 9,160.92 \text{ cu. in.}$$

Ques. 2—How would you proceed to lay off a right angle, using only a tape line?

Ans.—There are numerous ways in which this may be done: (a) Lay off with the tape a distance a b, Fig. 1 (a), of 4 ft. on a line that is to form one side of the angle. With a as a center and with a radius a c of 3 ft., describe a short arc of a circle. Likewise, with b as a center and with a radius b c of 5 ft., again describe a short arc of a circle intersecting the first; then draw the line a c passing through the intersection of these two arcs, and the angle b a c will be a right angle. Any multiples of the figures 3, 4, 5 may be used, as 6, 8, 10: 9, 12, 15, etc.

Ques. 3—How do you determine the circumference of the circle?

Ans.—Multiply diameter by 3.1416.

Ques. 4—How do you determine the area of the circle?

Ans.—Multiply square of diameter by .7854.

Ques. 5—How many degrees in a circle?

Ans.—There are 360 degrees in a circle.

Ques. 6—What is meant by the magnetic meridian of any place or point?

Ans.—The magnetic meridian is any great circle passing through the magnetic poles of the earth. The direction of the magnetic meridian at any place is indicated by the position of the magnetic needle at that place, assuming that the needle is not affected by local attraction. The magnetic meridian may deflect to the right or left of the true meridian, or may correspond to the same, according to the position of the place where the observation is taken.

Ques. 7—An entry runs west 100 feet, thence north 135 feet, thence west 140 feet, thence north 165 feet, thence west 160 feet; what is the length of a straight line from start to face?

Ans.—The total northing equals $135 + 165 = 300$ ft.; the total westing equals $100 + 140 + 160 = 400$ ft. The required distance from start to face is then

$$\sqrt{300^2 + 400^2} = 500 \text{ ft.}$$

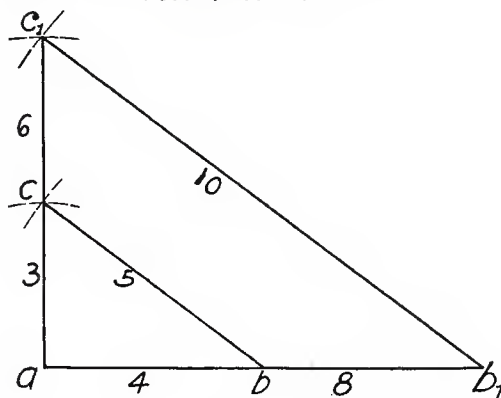


Fig. 1—Question 2

Ques. 8—(a) Give the square of 12.

(b) Give the cube of 12.

Ans.—(a) The square of 12 is equal to $12 \times 12 = 144$.

(b) The cube of 12 is $12 \times 12 \times 12 = 1,728$.

Ques. 9—Write one hundred twenty-five millionths in the form of a decimal.

Ans.—.000125.

Ques. 10—How many degrees in a right angle and what part of a circle is it?

Ans.—There are 90 degrees in a right angle and it forms $\frac{1}{4}$ of a circle.

Ques. 11—Describe, by diagram, an anticlinal and a synclinal.

Ans.—Fig. 2 shows example of anticlines and synclines. When strata are folded or wrinkled the upfolds, or ridges, are called anticlines or anticlinals, and the downfolds, or troughs, are called synclines or synclinals.

Ques. 12—What is an outcrop?

Ans.—An outcrop is that portion of any bed, seam, or vein that is exposed at the surface or hidden from view by a thin covering of soil or surface wash.

Ques. 13—What is meant by a fault? Describe one you have seen.

Ans.—A fault, in geology, is any break in the continuity of strata due to their fracture and displacement. Faulting is accompanied by a displacement of the strata, so that the same strata are not continuous on opposite sides of the fault. The erosion of a portion of a bed and the subsequent filling of the eroded portion with other material does not constitute a fault, there being no displacement of the strata. Such erosions are of frequent occurrence in coal seams and are often, though wrongly, called faults of erosion. A break in a coal seam due to a roll, a horseback, a pinch-out, or some similar cause is likewise often wrongly called a fault.

A fault encountered in a certain coal seam in Colorado gave little previous indication of its presence until suddenly the coal of the seam was replaced by a wall of rock inclined forwards and downwards at an angle of about 60° . A closer examination showed a smooth, shiny surface where the slip had occurred, and the several layers of the seam close to the line of the fault showed a slight inclination in the direction of the slip. The continuation of the seam beyond the fault was found 20 yards below by following the incline downwards.

Ques. 14—Define the three states of matter.

Ans.—The three states of matter are solid, liquid and gas.

Ques. 15—What is an element?

Ans.—An element is any simple substance composed wholly of like matter. For example, hydrogen, nitrogen, carbon, etc., are each elements.

Ques. 16—(a) What is an atom?

(b) What is a molecule?

Ans.—(a) An atom is the smallest part of matter that can enter into combination.

(b) A group of atoms so united and combined by chemical affinity that they form a complete, integrated whole, being the smallest part of any particular compound that can exist in a free state, as for example a molecule of water consists of ten atoms of hydrogen and one of oxygen.

Ques. 17—What is a compound?

Ans.—The molecules of a chemical compound are formed by the chemical union of two or more unlike atoms. In such a compound the elements are combined in fixed proportions that are always the same for the same compound or substance.

Ques. 18—What is a mixture.

Ans.—In a mechanical mixture the ingredients are mixed together in any proportion and are not chemically combined. While the properties of a chemical compound are always the same for the same substance, the properties of a mechanical mixture vary according to the proportion of the several ingredients in the mixture.

Ques. 19—What is a solution?

Ans.—A solution is the process by which a body (whether solid, liquid, or gaseous) is absorbed into a liquid, and, remaining or becoming fluid, is diffused throughout the solvent.

Ques. 20—What is atomic heat?

Ans.—Atomic heat is the product obtained by multiplying the atomic weight of an element by its specific heat. The atomic heat of all solid elements is nearly a constant, the value being 6.4.

Ques. 21—Which is the more dense, carbon dioxide or marsh gas, and why?

Ans.—Carbon dioxide is more dense than marsh gas, because it contains a greater weight of matter per unit of volume. This is shown by the molecular weights of the two gases, that of CO₂ being 44, and that of CH₄, 16. The densities of these gases are to each other, therefore, as 44:16 or 11:4; that is to say, carbon dioxide is 11/4=2¾ times as heavy as marsh gas, volume for volume.

Ques. 22—If 20,000 cubic feet of air and gas at its most explosive point are passing through the mine, what is the quantity of gas given off, and what quantity of air should be added to render it non-explosive?

Ans.—A firedamp mixture at its most explosive point contains 9.38 per cent of gas, and 20,000 cu. ft. will contain

$$20,000 \times \frac{9.38}{100} = 1,876 \text{ cu. ft. of gas}$$

and $20,000 - 1,876 = 18,124$ cu. feet. of air

Ques. 23—Find the number of square feet of rubbing surface in an airway 4 feet high, 9 feet wide, and 1,000 feet long.

$$\text{Ans.—} 2(4+9) \times 1,000 = 26,000 \text{ sq. ft.}$$

Ques. 24—What is the area of a road measuring 7 feet 3 inches by 6 feet 6 inches?

Ans.—7 ft. 3 in.=7.25 ft., and 6 ft. 6 in.=6.5 ft. Then, for the area,

$$a = 7.25 \times 6.5 = 47.125 \text{ sq. ft.}$$

Ques. 25—The pressure producing ventilation being 10.4 pounds per square foot, what is the water gauge?

Ans.—An inch of water gauge is equivalent to a pressure of 5.2 lb. per sq. ft., and therefore a pressure of 10.4 lb. per sq. ft. corresponds to

$$10.4 \div 5.2 = 2 \text{ in. of water gauge.}$$

Ques. 26—There is passing through an airway 35,000 cubic feet of air per minute, what will be the velocity per second if the size of the airway is 7.5 feet \times 5.5 ft?

Ans.—The area of this airway is $7.5 \times 5.5 = 41.25$ sq ft.; and the velocity of the air is, then,

$$v = \frac{q}{a} = 35,000 \div 41.25 = 848.4 \text{ ft. per min.,}$$

$$\text{or } 848.4 \div 60 = 14.14 \text{ ft. per sec.}$$

Ques. 27—A fan is making 65 revolutions and producing 35,000 cubic feet of air per minute, against a water gauge of .4 inch; what quantity of air should be pro-

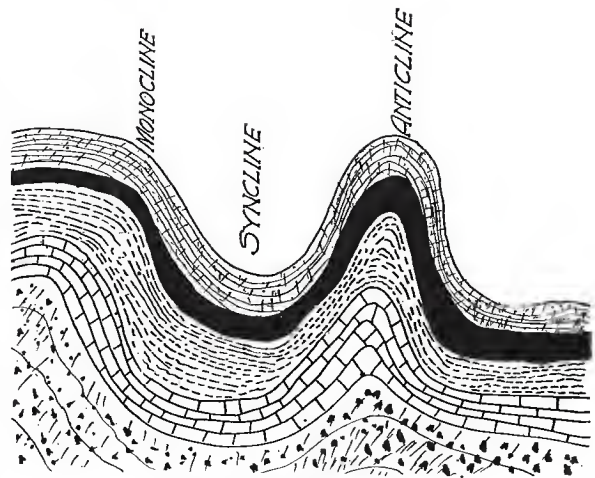


Fig. 2—Question 11

duced when the speed of the fan is increased so as to yield a water gauge of .6 inch?

Ans.—In any circulation, the quantity varies as the square root of the water gauge for the same conditions in the airway; the quantity ratio is equal to the square root of the water-gauge ratio, and calling the required quantity x.

$$\frac{x}{35,000} = \frac{\sqrt{.6}}{\sqrt{.4}} = \sqrt{1.5};$$

$$x = 35,000 \sqrt{1.5} = 42,866 + \text{cu. ft. per min.}$$

Ques. 28—Which will pass the greater quantity of air, and why; one airway 8 ft. \times 8 ft., or four airways 4 ft. \times 4 ft., the pressure being the same in each case and all the airways of equal length?

Ans.—The airways in this case are similar and for a constant pressure the quantity of air in circulation is proportional to the square root of the fifth power of the similar sides; or the quantity ratio is equal to the square root of the fifth power of the ratio of the similar sides. Calling the quantity of air passing in the 8 ft. \times 8 ft. airway q1, and that in one 4 ft. \times 4 ft. airway q2, we have

$$\frac{q1}{q2} = \sqrt{\left(\frac{8}{4}\right)^5} = \sqrt{2^5} = \sqrt{32} = 5.656 +$$

Or calling the quantity of air passing in one 4 ft. \times 4 ft. airway 1, the quantity passing in the 8 ft. \times 8 ft. airway is 5.656. Then, the pressure remaining constant, for every 5,656 cu. ft. of air passing in one airway 8 ft. \times 8 ft., there will be 4,000 cu. ft. of air passing in four airways each 4 ft. \times 4 ft., all the airways being of the same length.

Ques. 29—What is a regulator?

Ans.—A regulator is a partial stopping that closes up a portion of the transverse section of an airway. It may also be described as a stopping with a small opening through it that can be enlarged or diminished according to the quantity of air required.

Ques. 30—How should all doors affecting ventilation be adjusted in a mine?

Ans.—By the Anthracite Mine Law of Pennsylvania all doors used in assisting or in any way affecting the ventilation shall be so hung and adjusted that they will close automatically.

Ques. 31—How many cubic feet of air pass per minute along an air-way 6 feet high and 10 feet wide, the velocity being 450 feet per minute?

Ans.—The area of this airway is $6 \times 10 = 60$ sq. ft., and the quantity of air in circulation is
 $q = a v = 60 \times 450 = 27,000$ cu. ft. per min.

Ques. 32—Where would you apply the water gauge? Does it increase or decrease as the workings extend, all other conditions remaining the same, and why?

Ans.—A water-gauge reading should be taken as near to the foot of the downcast or the mouth of a split as possible. The instrument is attached to a brattice or door dividing the main intake and return airways.

The water gauge increases with the extent of the workings, other conditions remaining the same, because the extended workings represent an increased rubbing surface, consequently, an increased mine resistance and pressure.

Ques. 33—How do you measure air in mines? What instruments are necessary? Assuming the dimensions of the air-course to be 4 ft. 6 in. \times 7 ft., what is the velocity of the current when 10,000 cubic feet of air is passing?

Ans.—First, measure the velocity of the current by holding the anemometer for, say 1 minute in different parts of the section of the airway; then measure the height and the width of the airway at this point, and calculate the sectional area of the airway, in square feet; then multiply the area by the velocity of air passing.

The instruments required are, anemometer, tape line, and timepiece.

$$\frac{10,000}{4.5 \times 7} = 317 + \text{ft. per min.}$$

Ques. 34—What conditions are necessary to produce natural ventilation? Explain by diagram the course of the current in summer and winter?

Ans.—The conditions producing natural ventilation must be such as to produce a difference of pressure between the intake and the outlet of the airways of a mine; and this difference of pressure must be caused by natural means; as, for example, the natural heat of the mine or wind pressure at the mouth of the intake.

Fig. 3 represents the natural ventilation of a drift in connection with an air-shaft a b. At the left (a) is shown the direction of the current in summer; at the right (b) is shown the direction of the current in winter. In summer, the outside air being warmer than the air in the mine, the air column in the shaft a b is heavier than the outside air column c d. In winter, these conditions are reversed; the outside air being cooler, the outside column c d is heavier than the shaft column a b. The air in the airways always moves from the point of higher pressure toward the point of lower pressure, thus causing a reversal of the current as the season changes.

Ques. 35—If, with an upcast temperature of 180 degrees and a downcast temperature of 48 degrees, the pressure is 5.75 pounds per sq. ft. what will the pressure be if the upcast temperature is raised to 200 degrees?

Ans.—Assuming the depth of the upcast equal to that of the downcast, the motive column, downcast air, is given by the formula

$$M = D \left(\frac{T-t}{460+T} \right)$$

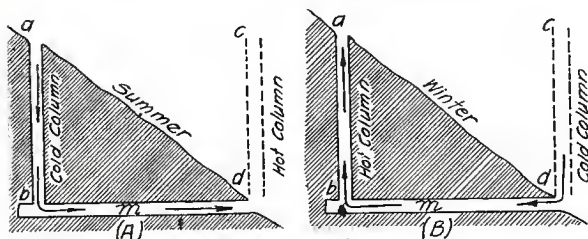


Fig. 3—Question 34

Then, the motive column or the pressure, for the same depth of shaft, is proportional to the expression, $\frac{T-t}{460+T}$

$$\text{and } \frac{180-48}{460+180} : \frac{200-48}{460+200} = 5.75:x,$$

$$\text{and } x = 5.75 \times \frac{152}{132} \times \frac{640}{660} = 6.42 + \text{lb. per sq. ft.}$$

(Will be continued next month.)



Winton First Aid Team. Left to Right: Lawrence Witworth, (Captain); W. G. Adams, James Jones, Wilford Bell, John Besso, Charles Besso (Patient.)

September Accidents

(Continued from page 375)

and his leg was caught and squeezed between machine and empty car.

Timberman—Was setting a prop and some top rock fell, striking and bruising foot.

Foreman—Was splicing a rope when he was struck on hand by cutter, wound later becoming infected.

Machine Man—Was taking down jack-pipe after cutting face, when small piece of rock fell, cutting him on left side of head.

Inside Laborer—Was putting prop under conveyor pan. When conveyor started, prop rolled on toe, causing contusion.

Driller—While operating drill machine, his shirt sleeve was caught in thread bar, bruising and lacerating arm.

Motorman—Cable on motor became bare due to wearing against frame. Cable shorted, causing an arc and he was burned on his hip.

Loader—Was loading car at working face. A piece of top coal fell, striking foot, and causing fracture of small bone.

Miner—Nipper uncoupled empty car from motor trip. Empty car being on a slight grade started moving down entry and struck miner who was working in center of track.

Motorman—While landing a loader trip on slope parting, the latch became unfastened and came up through motor cab, fracturing motorman's leg.

Engineering Department



The Electric Motor

D. C. McKEEHAN.

(This is the second of a series of articles on the electric motor by Chief Electrician D. C. McKeehan. The concluding article will appear in the December issue.)

THE polyphase motor is the next type to be considered, but first I shall tell something of the development of the polyphase system. This system was developed by Nikola Tesla after nine years of arduous work and was announced to the world in 1888. The first polyphase system was two-phase, which consisted of two single-phase circuits combined in one machine and acting at right angles and producing a turning effort quite similar to the ninety degree crank arrangement on a steam engine. Later, the three-phase system which combined three single-phase circuits was universally adopted.

The polyphase system was equally advantageous for application to generators or motors and has made possible the large, long distance power transmission systems that we now have all over the world. This method of generating and transmitting power is of equal importance to our economic life as our transportation and communication systems.

Polyphase motors may be operated on two or three phase circuits using either three or four wires, and may be of the synchronous or induction type.

Synchronous. This motor has substantially the same construction as an a-c synchronous generator; in fact, it may be considered to be a reversed generator that takes electric power and delivers mechanical power. As a motor, it has two disadvantages, namely, it requires special provision for starting and for separate direct-current excitation of its field. On the other hand, it has two characteristics that often are highly advantageous, namely; (1) for a fixed number of poles its speed depends only on the frequency of the current supplied, that is, on a large system its speed is almost absolutely constant; (2) by adjustment of its excitation, the motor will take either a lagging or a leading current, that is, by strengthening its field the motor power-factor can be made unity or even leading, in the latter case raising the power factor of the supply system and consequently increasing its efficiency.

Induction. An induction motor is an alternating-current motor, either single-phase or poly-phase, comprising independent primary and secondary windings, one of which, usually the secondary, is on a rotating electromagnetic induction. A rotating magnetic field is produced in the motor by the currents in its primary windings and this field cuts across the conductors of the secondary. The induced secondary currents react with the rotating field to produce the torque of the motor.

A drop or a difference in speed (called "slip") between the rotating field and the secondary conductors is necessary in order for the field to cut these conductors and thereby induce the secondary currents. Slip increases with load. The power-factor of the induction motor, unless special compensating construction is used, is less than unity due to the relatively large magnetizing current required on account of the air gap in the magnetic circuit. The power-factor is quite low at light load and rises with the load.

Induction motors are designed to operate with single-phase and with polyphase currents. Single-phase motors are very common in fractional-horsepower and other small

sizes; while poly-phase motors, particularly three-phase, are common in larger sizes. Motors having a rating of 10,000 horse-power are quite common these days. The secondaries of induction motors may consist of a series of bars equally spaced in slots around the circumference of the core and short-circuited at each end by rings of conducting material called the end rings; this is known as the "squirrel cage" type. Or, in poly-phase motors, the secondary may have a polyphase winding similar to that of the primary; this is known as the "wound-rotor" type. This is the type on our large slope hoists. The speed of the usual types of induction motors depends mainly on the frequency of the supply, the number of poles and the secondary resistance. Speed control is usually effected by: (1) changing the secondary resistance of the wound-rotor type; (2) changing the number of poles produced by one or two primary windings; (3) by connecting two motors in tandem or cascade. In the last case, the secondary of one motor is connected to the primary of a second motor which is commonly built on the same shaft; the speed is that of one motor having a number of poles equal to the sum of the number of poles of the two motors in tandem; this is called the "concatenated" motor.

Induction motors of the squirrel-cage type are very commonly used where an approximately constant speed is desired and starting is infrequent; they are rugged machines and require very little maintenance. The wound-rotor type is used where adjustable speed and frequent starting is necessary, especially where starting is under considerable load and must be with minimum starting current; they are also used in reversing service, such as in crane, hoist and for heavy steel-mill work. Pole-changing and concatenated motors are not much used, though the application of the former has recently been extended to elevator service and pumps.

Synchronous-Induction. A motor possessing characteristics of both the synchronous and induction types. It starts and comes up to speed as an induction motor with a wound secondary having adjustable resistance. It runs, for normal loads, as a self excited synchronous motor. For loads exceeding the breakdown torque as a synchronous motor, it operates as an induction motor up to a higher breakdown torque. It is thus able to carry a somewhat greater momentary overload than the straight synchronous motor. It will automatically resume synchronous operation if the load is reduced below the breakdown torque of the synchronous motor. The d-c excitation for synchronous operation is provided by a separate winding. As in the straight synchronous motor, this excitation may be so adjusted as to make the motor operate near unity power-factor or with the current leading, thus compensating for lagging current taken by other machines.

A-C. Commutator. This is a motor whose rotor is provided with a winding and a commutator similar to the armature of a d-c machine. In some motors, as the series and the repulsion types, the commutator is a necessary feature of the construction; in other, as the single-phase and polyphase induction motors with shunt characteristics, the commutator is an auxiliary device for speed control or power factor correction.

A-C. Series. This is a motor having a series winding, similar to that of a d-c series motor and operating on alternating current. The iron of the field structure, as well as that of the armature, is laminated to reduce eddy currents. The power-factor is below unity due to the self induction of the windings, but in large motors used for traction work

this feature is improved by building in a compensating winding, which largely neutralizes the inductive reactance of the armature, leaving only that of the field winding to lower the power-factor. The commutation in large motors may be accompanied by sparking unless special designs are followed. A common arrangement consists in making the commutator risers of greater resistance than in d-c motors. The speed torque characteristic is similar to that of d-c series motors, giving a large torque at low speeds and smaller torques at higher speeds. This is the type of motor that is desirable for mine locomotive use but unfortunately is only successful in the very small and very large sizes. The limits being from fractional horse-power ratings to three horse-power and from fifty to two hundred horse-power. The sizes from three to fifty horse-power have never proved successful.

A-c. series motors are used in small sizes for driving fans, vacuum cleaners and such devices as give a constant load or one in which a large change of speed with change in load is not objectionable, also where operation either on direct current or on alternating current is desired, this being called the universal motor. In large sizes they are used for a-c., and combined d-c and a-c. electric railways and to a limited extent for cranes and hoists.

Repulsion. This is a type of single-phase a-c. motor in which the torque may be considered as being produced by the repulsion of like magnetic poles. The rotor is like the armature of a d-c motor. Brushes bearing on the commutator 180 electrical degrees apart are short circuited and a current induced in the armature by the primary magnetizes the armature along an axis displaced several degrees from the line of magnetization of the primary. The magnetomotive forces of the primary and secondary are oppositely directed in part, and the poles, which may be considered as being produced on the surfaces of the stator and the rotor adjacent to each other but displaced tangentially, are of like sign and therefore give a force of repulsion.

The power-factor of the simple repulsion motor is rather low except at high speeds. This feature is improved in the compensated repulsion motor in which a second set of brushes placed 90 electrical degrees from the short-circuited set leads the primary current through the armature. Such a motor will take a leading current at speed above synchronism. The speed load characteristic of the repulsion motor is similar to that of the d-c. or a-c. series motor and can be modified by shifting the brushes. The repulsion motor characteristic is used in combination with the single-phase induction motor, either for continuous running or for starting only.

Split Phase. Commonly a single-phase induction motor with an auxiliary winding used for starting only, this winding being displaced 90 electrical degrees from the main winding and carrying a current differing considerably in phase from that in the main winding. The difference in space phase and time phase between the magnetomotive forces of the two windings produce a rotating magnetic field which gives the motor a starting torque, a torque not produced by the main winding alone. The starting winding is usually disconnected by an automatic centrifugal switch as the motor approaches full speed. These motors are wound identically the same as Tesla's early two-phase motor. The automatic switch disconnects one phase of the winding, hence the term "split".

Polyphase wound motors are sometimes started from a single-phase supply by a combination of resistors and reactors which produce out of phase currents in the different phases of the winding.

(To be concluded in the December issue.)

Danger Ahead

Ruth had been taking shots in the arm as a typhoid preventive.

"Mother," she complained, after the doctor had departed from his last visit, "if they don't quit giving me so many punctures I'm going to have a blowout."

The Passing of Spring Valley, Wyoming

By C. E. Swann.

SPRING VALLEY, WYOMING, located on a gently sloping hillside having a northern exposure and nestling in a valley on the east side of Aspen Mountain with its summer coat of green and wide expanse of open country formed a picturesque spot for the location of a Wyoming Coal Metropolis, but such was not to be and the why's and wherefore's are told in this article.

The Spring Valley—Cumberland—Kemmerer coal field, hereafter in this article called the "Cumberland Basin," had been prospected on the east flank or outcrop for a number of years prior to the opening of the Spring Valley No. 1 Mine in 1899, also the Cumberland Basin was known to contain workable coal only in lenses of various sizes throughout its area.

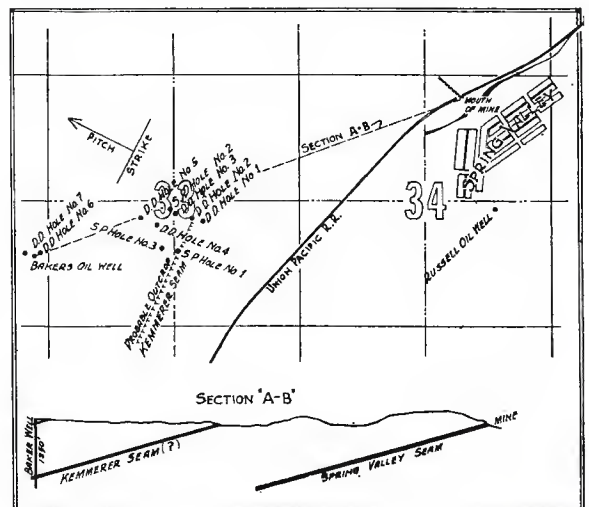
The prospected coal seams occur across a synclinal or inverted basin extending approximately eighty miles in a northeasterly direction, starting from a point about ten miles south of the west portal of the Aspen Tunnel on the Main Line of the Union Pacific Railroad and extending to the Fontenelle River thirty miles north of Kemmerer.

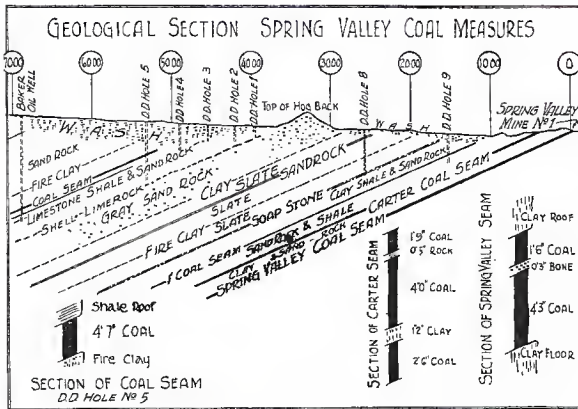
The basin is of unknown width, east to west, at Kemmerer, due to major faulting of strata in this area, is approximately four miles wide at Cumberland No. 1 Mine and is of unknown width at Spring Valley account of faulting of the strata, also because of the fact that the west outcrop is covered with wash and does not come to the surface making it impossible to definitely determine its location. It is suspected that both the east and west outcrops occur in the territory south of Altamont on the west side of Aspen Tunnel.

The dip or pitch of the coal seams outcropping along the east rim of the Cumberland Basin varies from as low as twenty feet in one hundred to almost vertical due to folding of the rim strata.

The main marker coal seam in this field is the Kemmerer-Cumberland Seam, hereafter to be designated the Kemmerer Seam, but in both the north and south ends of the Cumberland Basin the definite location of the Kemmerer Seam is extremely difficult of determination because of the thinning out of the seam, its intermittent occurrence, also due to the fact that the Kemmerer Seam fails to come to the surface on portions of the east rim account of being covered with washed ground.

Geologist A. R. Schultz, formerly employed by the Government, classifies the workable seams below the Kemmerer Seam into three groups, which he designates from the top





group down as the Willow Creek series, the Blazon series and the Spring Valley series.

While the Kemmerer Seam is characterized by good roof and floor conditions, with general good mining conditions and thick seam where mined, the seams in the three lower series have just the opposite conditions in that the seams are mostly thin and the general mining conditions, including roof and floor, are usually bad.

The quality of the coal in all the seams is very good and the Spring Valley Seam is especially desirable for railroad fuel, and this fact, plus its easy accessibility from the Main Line of the Union Pacific Railroad, no doubt were the determining factors which led to the decision to open a mine at Spring Valley.

After Spring Valley had been opened for a few years and it was discovered that mining conditions were even worse than anticipated, due primarily to the unstable condition of the strata surrounding the coal seam, the thinning of the coal bed as the main slope advanced, combined with the presence of large volumes of explosive gas, liberated in the working faces as it escaped from the underlying oil formation.

All of above conditions tended to make the cost of producing coal from this mine extremely expensive and lead to a determined effort to locate the Kemmerer Seam, which in other parts of the field was blessed with good mining conditions and low cost production.

The Baker oil well was being drilled on the southeast quarter of Section 32, approximately two miles southwest of Spring Valley and it was reported that they had passed through several coal seams; the first seam being six feet thick at two hundred thirty feet, second, four feet thick at one thousand one hundred eighty-three feet and the third was seven feet thick at one thousand two hundred fifty feet in drill hole.

After explaining that a section of the strata shown in the hole was desired in order to determine the approximate position of the outcrops of the coal seams encountered, a copy of the log of the well was obtained. The next step was to draw up a theoretical section of the field to determine if one of the coal seams in the Baker well approximated the theoretical location of the Kemmerer Seam and it was decided that possibly the two lower seams might be the Kemmerer Seam with a split section.

A systematic drilling campaign was inaugurated to determine if possible where each of the seams outcropped, and it was discovered that the outcrops were covered with a thick wash and that apparently the seven foot seam shown in the Baker well either pinched out or had been displaced. As only the four foot coal seam came close to the surface the prospects for developing a mine on the Kemmerer Seam in this locality vanished.

Neither other workable seams of good quality coal were shown to exist in the near vicinity of Spring Valley and it was decided to abandon operations in the Spring Valley No. 1 Mine in 1905, and the camp passed out of existence and became only a memory.

The Puritan Complex

By Reverend L. R. Hosford.

AFTER the first New England harvest had been gathered in 1621, Governor Bradford made provision for a day of rejoicing, praise and prayer. Since his time, hundreds of governors have made similar provisions, and Abraham Lincoln established the presidential tradition of proclaiming the last Thursday in November a day of national thanksgiving.

This festival, coming out of the life of those who were most responsible for the establishment of our nation, reveals something of the true spirit of the Puritan Fathers. In spirit, the whole world now proclaims that they were right; in method, there is little doubt that we have them bested. We may, indeed, say with Nathaniel Hawthorne:

"Let us thank God for having given us such ancestors, and let each succeeding generation thank him not less fervently for being one step further from them in the march of ages."

The Puritan had a stern and unyielding conception of social life. In the first place, religion meant so much to him that there was nothing in his community life but it. Politics existed only as a branch of religion. Government was a branch of religion. Farming was a branch of religion. Those who straggled into the community and did not lend themselves heartily to the religious atmosphere were either coerced or driven away immediately. Blasphemy was a crime punishable by death. A woman was driven out of town because she had smiled in church. Men stood all day long in the public stocks for having spoken lightly of the minister's sermon. And what sermons they had!—often five hours long. In those days they had no clocks. An old-fashioned hour glass filled with sand stood on the pulpit. It was the janitor's duty to step up and turn the glass upside down every hour during the preaching.

These were the people who dominated our country during its formative period, its infancy. But let us not think of them as engaged altogether in singing and praying and hanging witches. Work accompanied their quest for holiness. The Puritan was an agriculturist, a trader, a manufacturer. But above all, this New England parent of ours was a thinker. Thirty years after the establishment of Plymouth, every New England colony excepting Providence had made public instruction compulsory. Every settlement of fifty householders was compelled to support a public school. Every town of 100 inhabitants had, in addition to the common school, a grammar school prepared to fit scholars for college. A book of learning was a treasure rising almost to the dignity of real estate. It is reported that a New England merchant loaned a Greek book to Harvard College with the stipulation that if he should ever have a studious son it should be returned. It is reported that the book was returned!

These few comments on New England life should serve to indicate the earnestness of the Puritan spirit. The man who does not like the 18th Amendment has a long tale to tell about the Connecticut Blue Laws and Puritanism. As a matter of fact, if he wants to get up a good anti-prohibition speech he had better take the Puritans on his side. For he can read in their early literature of parsons making out daily calendars of devotions to be read while the whole family is zealously engaged in making home-brew! He will read of famous divines writing home to their wives that they will please send them by next week's post some of the favorite tobacco that hangs from the rafters just above the holy books.

Nevertheless, it was these same stern men who finally unfolded to make room for Irish, Swedish, Italian and French that all might seek religious and economic freedom. I do not thank God for the religion of my ancestors! I thank him for the earnestness of living which characterized them. When a man is whole-heartedly engaged in the serious business of living, he is essentially after one thing and one thing alone. And that one thing is typified in the Puritan spirit, whether it be in the age of pewter cups and powdered wigs, or in the present time. That one thing is purity—national and personal purity.

Farthest North

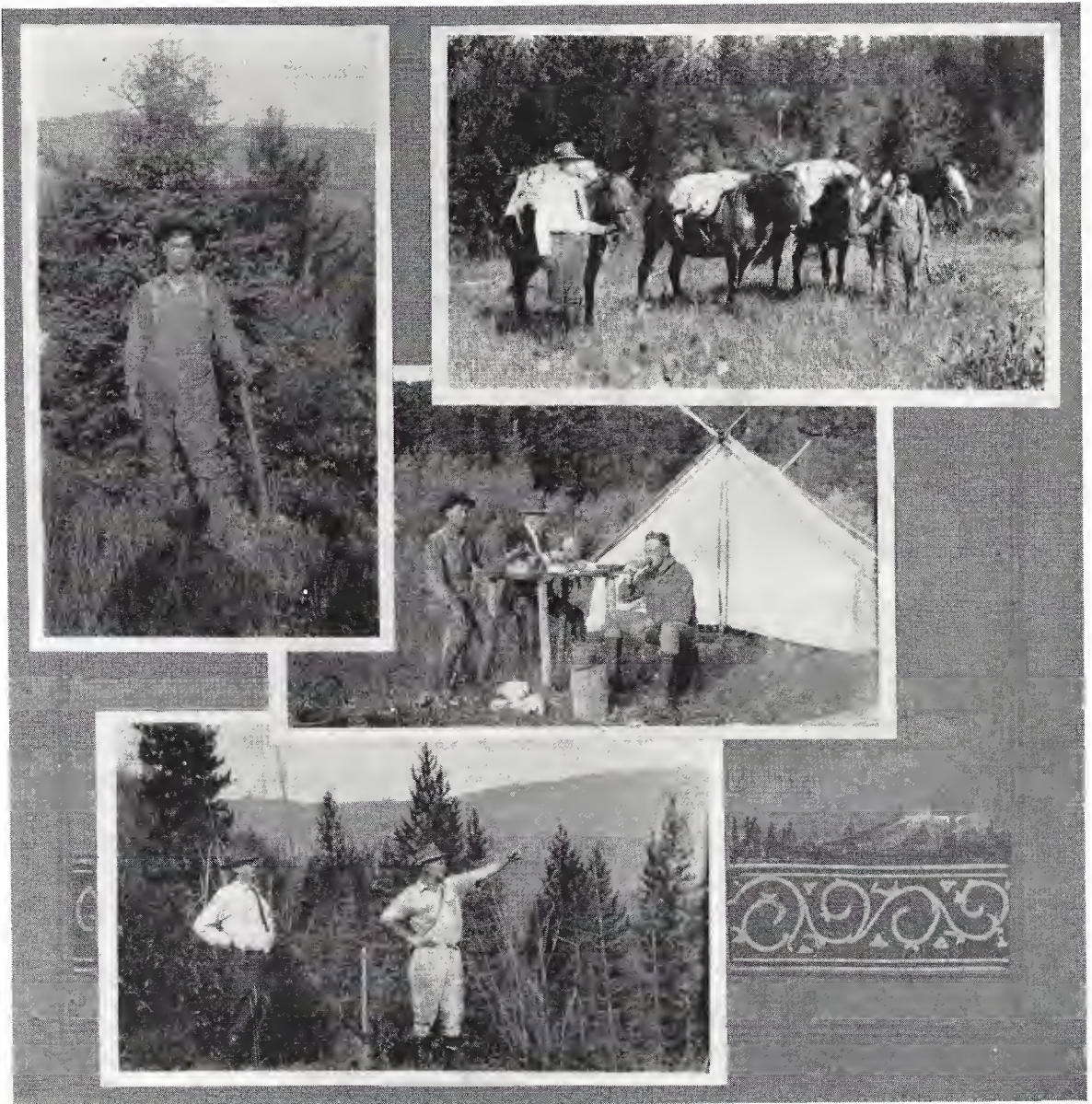
By Frank V. Hicks

"THANKS to an honest face." Such was a comment made at the Canadian border after a customs officer had searched my belongings and passed on, though inspecting those of the rest of the party.

The above occurred during the fore part of August, when it was my privilege to accompany Mr. Eugene McAuliffe and Mr. Geo. Watkin Evans on a trip of inspection of the property of the Imperial Coal Company in British Columbia, about seventy-five miles north of Fernie, B. C. At Fernie we met Mr. Evans and proceeded to outfit ourselves with supplies. Everybody got fishing tackle, but the Senior Philosopher thought he

would have to have some heavy boots and shoes as well, whereupon he bought a pair resembling sabots, weighing, I should say, about five pounds apiece. He wore these as long as we could ride in the automobile, but when we reached the point where walking began, he changed to his light vici's.

We secured a driver to take up out in a high-powered car that performed beautifully. Rain had been falling previous to and during the time of our leaving, and in several instances we had difficulty in extricating ourselves from the mud. After one such experience the driver expressed the necessity for a stimulant, and forthwith



Upper Left—Harry Couillard, soldier, guide and hunter, a fine type of man.

Upper Right—The Senior Philosopher and Guide Couillard with the pack train ready to move.

Center—Harry Couillard, the S. P. and the writer at Camp Imperial "doing our stuff."

Lower—Left to Right—The S. P. and George Watkin Evans, Mining Engineer, Geologist, "Troubadour of the Rockies," and genuine good fellow.

produced a bottle of gin. Having no cork-puller, he proceeded to extricate the cork by pounding the bottle, in an upright position, on the spare tire. This method (developed since the advent of the automobile) was not generally practiced in the United States in pre-Volstead days. However, there are tricks in all trades. Let the record show that the driver drank alone.

We arrived at Billie Bovin's cabin on Elk River on the evening following our leaving Fernie. No one was at home, but we were previously told to use the cabin. Being somewhat hungry after our day's ride, and having participated at noon to a Rotary luncheon, at which, as usual, there was more talking than eats, we immediately began to prepare the evening meal. We were well supplied with canned goods, but found that we had no can-opener. However, we instituted a search and found one, Geo. W. assuming the duties of chief cook at this time. When making the tea he had overlooked the fact that he should clean out the coffee pot, and when the brew was finished it was discovered that we had a mixture of coffee and tea. The following morning we secured the services of Harry Couillard as packer and guide. Harry had served three years as sergeant in the Canadian army overseas, and it is not to be wondered at that the Canadian army made such a remarkable record during the World War, when consideration is given to the fact that many men of his caliber made up its personnel.

After wrangling the horses necessary for making the trip, packing, etc., we proceeded to Brule Creek on the Elk River. Here it was necessary for the three of us to cross the river on a trolley, while the packer forded the stream with the horses. We, having crossed first, went ahead, taking a trail up the Fording River, thinking this was the proper one. After having gone a considerable distance and missing our guide and packer, we began to think that something was wrong, and several caustic comments were made by the S. P. to the effect that it was a fiendish trick to hire a guide and then run off and leave him. After having traveled most of the day, we came to an opening in the timber and, as this was the last place on the trail where it would be possible to obtain forage for the horses, we stopped and made camp for the night. We had started with several dozen eggs among our supplies, but when we made an inspection that night we found that about half of these had been broken, and decided that scrambled eggs would be good for the evening meal. These were scrambled "a la Evans." We undertook to make beds with fir boughs and found, after it was too late, that we did not have enough to be sufficiently comfortable. Mosquitos began to make their appearance with darkness, and we all disrobed, by taking off our boots, and climbed into bed early in the evening. The mosquitos had a great time with the bald-headed members of the party, but "yours truly" took no chances and slept with his hat on.

Breaking camp early in the morning, the horses were packed and started up the east bank of Fording River to the Headquarters' Camp of The Imperial Coal Company. This is a fisherman's paradise and Isaac Walton would realize his fondest dreams and expectations here. We reached the Imperial camp quite early in the afternoon and, having had a rather easy day, Geo. W. and I climbed to the top of the mountain lying between Todhunter Creek and Ewing Creek. From this vantage point one could get a wonderful view of the Canadian Rockies, with their hundreds of peaks and glaciers. Spending that afternoon and the next morning in an inspection of the prospects of the Imperial camp, we packed and started back to the site of our previous camp, which we made by mid-afternoon. The S. P. and Harry prepared camp while Geo. W. and I fished. The beds which Harry prepared were works of art, made entirely of fir boughs, being fully a foot deep, and looking down upon them not a branch could be seen. Harry, too, by this time, had tired of our cooking and prepared the supper, which was not only a relief to him but to us as well. In order that we might continue to fish, the S. P. volunteered to

wash the the dishes, which, he said, broke a life record, alleging that never before had he washed a dish.

Previous to retiring for the night, a smudge fire was built in the tent by placing coals in frying pans and covering them with moss. If any Bureau of Mines men should chance to read this, take note here: This has wonderful possibilities for mine rescue contests. We awoke in the morning with a patter of rain on the tent and cooked breakfast under considerable difficulty. Geo. W. and I went on ahead, leaving the pack train and the S. P. in order that we might get in early and telephone for an automobile to meet us at Brule Creek, as we must not lose any time. Incidentally we knocked the water off the pines along the trail to make good traveling for those who were following.

We arrived in Fernie that evening, tired and exceedingly hungry, leaving the same evening for Corbin, British Columbia, to be the guests of Geo. W. Evans at the property of the Corbin Coal Company, of which he is General Manager, which was a most interesting operation to us. Here they are preparing to mine a body of coal, stripping with shovels, the coal body lying in the side of the mountains almost entirely exposed. The coal body varies in width from 400 to 700 feet, is 300 feet deep and several thousand feet in length. The coal, as it is mined, carries considerable impurities and must be passed through a washer. Mr. Evans is successfully carrying on the wet washing of the coal even at temperatures as low as 40 degrees below zero.

The party broke up at Corbin, the S. P. going east, taking with him two jars of Scotch Marmalade. I have since been informed that he negotiated the line without search or seizure, "thanks to an honest face."

Roll Call

Pretty Bird,
Homely Bird,
Dull Bird and
Gay!
Come, pack your songs up tight,
Let's fly away!
Autumn's here,
Winter near,
Quick! Off we go!
Leave only those
Who love the snows,
Like Titmouse and Junco.

—Effie Lee Newsome.

Cumberland Band Holds Picnic

The Cumberland Band held its second annual picnic September 4th, 1927, at Old Fort Bridger, Wyoming.

One of the events of the day was a band concert given by the Cumberland Band on the site used by the United States Army Bands during the early days of the Fort.

The Cumberland Band holds the distinction of being the first band to play in the Fort since it was abandoned by the government.

The following is a list of numbers given by the band:

1. Bugle Calls.....By Mr. P. A. Yound,
Band Leader
2. National Emblem.....By E. E. Bagley
3. Memories of the War.....L. P. Laurendeau
4. Hot-N-DryMcFall
5. Yankee Spirit.....Ernest Weber
6. Harmoniana (Overture).....J. F. Galuska
7. Under the Double Eagle.....J. F. Wagner
8. With the Colors.....S. E. Morris
9. The Western World (Overture).....Ed. Chenette
10. Stars and Stripes Forever.....Sousa
11. "Howdy"Ted and Josh
12. Drum MajorJacob Henry Ellis
13. Star Spangled Banner.

Let's Go Fishing

By Matt Medill

A VACATION of five days meant a fishing trip to us, four of us. Len Martin of Illinois, who can't stay away when fishing season opens; General Robert Simpkins, who says that Scotchmen are not stingy—with time to fish; Pat Campbell, who'd rather cook for an army than three Wyoming fishermen, and the writer, who feels uncomfortable since "Shine" Grosso of Reliance copped the biggest fish and insisted on all the medals being pinned on him.

Leaving Rock Springs at noon we arrived at Boulder about 4:30 P. M., and in a grove of trees back of Uncle Bill Bower's we set up our camp. That done we killed time until supper was prepared by the expert manipulations of Pat and eaten to a re-telling of what each of us would do to the fish in the morning.

Early to bed and up early to another sample of the cooking that kept the doughboys from going doughy and then we struck out, returning in the early afternoon with twelve good rainbow trout averaging $1\frac{1}{2}$ to $4\frac{1}{2}$ pounds, three of which we cooked for supper, sending the rest to town with my boys, Bill and Matt, who'd taken our luggage out.

We spent the evening in Uncle Billy's cabin where we had a great time, for Uncle Billy is a real country man and a Westerner.

The next morning we were anxious to get a good catch early and be back at camp to welcome some visitors we expected, to have supper cooked for them. And, true to our resolves, by 4:30 P. M. we had a mulligan ready which could not be surpassed by anybody or his chief unless by chance our Pat C. cooked it for him. And just after we'd assured ourselves that the mulligan was right we heard the

automobile which proclaimed the approach of our visitors, Mr. and Mrs. G. B. Pryde, Miss Elinor Pryde, Mrs. Medill, Mrs. Martin and Miss Martin. There they were, the ladies with so many cakes and pies and mellons and extras we were assured of a good supper—with the mulligan; and the men of the party, especially the Scot ready to be, no—not stingy, just to steal the title of Special Wyoming Fisherman away from his fellow sportsmen.

Our visitors were leaving us at noon the next day so we were up early to attack the three foot high pile of flap jacks which came tumbling down like Dempsey's fighting record when we set to. Eight beauties was the catch we brought in this morning to send back to town with our "dude" visitors.

The next day the General was high man in the fishing score and was still pluming himself when Mr. McDonald and family drove into camp. Mrs. McDonald offered to show us how to cook mulligan, our favorite camp dish, and when she'd finished we were ready to admit, even our star cook, that—for a woman—it was well done. In any case we did rather well by ourselves in eating it, including in our guest of this evening, J. A. Forbes, our old friend and fisherman.

This same old friend made the excuse for the writer to slip away early the next morning—six miles in his Ford before the camp was astir, coming back before lunch with six good sized trout for our last catch. At camp were the boys and some guests ready to help move us back to Rock Springs and home. Which accomplished, that evening we looked back toward the mountains and pronounced this one of the best trips we'd ever had. And only ninety miles from home! Oh, ye, who sing the praises of the distant spots!



Circle—A fourteen-pound fish caught by "Shine" Grosso of Reliance at Kendal, Green River, on Labor Day. The winner so far.

Right—Caught by General Simpkins, Len Martin, Pat Campbell and Matt Meddill, huge fish—until "Shine" came back from his trip.

Left—Len Martin and Matt Medill.

Lower—General Simpkins and three of the fish he caught on the trip.

Night and the Stars

YOUR landscape here upon our earth may change with each mile travelled, whether passed by ship, train, auto, or aeroplane, but the skies will not change; immutable, now, then and forever, the same dome will arch over your head and the stars, that shine alike for king, peasant and slave, provide a tie that binds today with the old cultures, whether Scriptural, Oriental, Roman or Greek.

Matthew Arnold, the mystic poet in his, "A Summer Night," said of the stars:

"I will not say that your mild deeps retain
A tinge, it may be, of their silent pain
Who have long'd deeply once, and long'd in vain—
But I will rather say that you remain
A world above man's head, to let him see
How boundless might his soul's horizon be,
How vast, yet of what clear transparency!"

Linked to the sublime, the stars (even a few if well known) touch our deeper emotions, open new and wider vistas to the mind and teach an example of conscious rectitude, expressed in precision and exactitude, such as cannot be found among earthly affairs.

The October Atlantic Monthly contains an article by Professor A. E. Douglas, of the University of Arizona, on the two great sciences, astronomy and geology, from which we take the liberty of abstracting the following:

"The greatest book on science written in antiquity was by Ptolemy, an Alexandrian Greek, who lived more than a century after Christ. His book is about astronomy, but contains all the knowledge of his day in scientific lines. He treats of the earth and of geography and of mathematics and of the motion of the stars and planets, but he makes the mistake of placing the earth at the centre of the universe. His real reason for this was simple common sense. The stars and planets were believed to be near and small, and it would have been entirely absurd to think of those small objects as being stationary with the great earth moving around them; whereas it was entirely reasonable to think of the earth as stationary, with the little planets going around it every day.

"This mistake lasted fourteen hundred years. In the meantime the Arabians improved their mathematical methods and got a real idea of the distance of the moon and therefore of its size, and by the sixteenth and seventeenth centuries it was realized that the sun was much farther off than the moon and consequently much bigger. Therefore Copernicus and Galileo, realizing that the vast sun was more likely to be stationary than the smaller earth, began the modern teaching of our solar system as we know it. Yet the people of their day could not understand any new arrangement of the heavenly bodies, because as yet they were slow to learn the greater distance of the sun and moon, and they opposed these astronomers so violently that Galileo spent all of his old age in prison. Add to this the fact that the religious faith of that day had been tied to the idea of the earth as a centre; in short, people had made a religious idol of that thought, and they opposed the new idea with a fanaticism that we cannot realize today. But by 1650 the distance of the sun was known and generally accepted, and this religious idol was thrown down. It was seen that the sun is of immense size and situated in the centre, and the smaller planets move around in orbits, each in its own particular year. But the stars beyond were still thought of as a canopy off at the end of space, like a curtain hung about the universe.

"It was two hundred years after the solar system was recognized that the distance of the first star

was measured—a distance so great that it is impossible for us to realize it. The earth is 8,000 miles in diameter. The moon is distant 30 times this, or 240,000 miles; and the sun is almost 400 times as far away as the moon, or 93,000,000 miles. If a traveler should go by express train across the continent and back continuously, it would take him four hundred years to travel that distance. That seems great enough, but the nearest star is 275,000 times that distance. That makes twenty trillion miles, or three and a half light years. Stellar distances are so vast that this new unit has been adopted to express them. Light travels 186,000 miles a second. The nearest star is so far that light takes three and a half years to come from it.

"By 1900 some fifty or a hundred stellar distances had been measured by the Greek method, and then Kapteyn greatly extended that method by using as a base line not the diameter of the earth's orbit, as heretofore, but the motion of our sun in space. He was followed by Adams, of the Mount Wilson Solar Observatory, and others who worked out a spectroscopic method, by means of which more than 2,500 stars are now known as to distance. Shapley, of the Harvard College Observatory, using an observation of Miss Leavitt's, has worked out the application of what is known as the Cepheid Luminosity Period Law and obtained distances as great as one million light years, so that now we can see past the nearer stellar trees and discover the forest of stars beyond. We find that the brighter stars are generally near us, but that they are at immensely different distances. They form a group of which our sun is a member, and this group is called our local cluster. Its members may be as much as two hundred light years away. Beyond that the stars thin out a little until we come to other local clusters. Many of these supply our constellation groups. For instance, Orion is one group, distant five hundred or six hundred light years. We know that vast numbers of these groups combine to form our galaxy or stellar system, of which the Milky Way is our direct evidence. This stellar system, which has long been called our universe, has the shape of a disk, thicker at the centre like a lens. Its thickness through is possibly 10,000 light years, and its full diameter is 75,000 to 100,000 light years. Beyond its edges are vast vacant spaces until we come to other stellar systems, some of the nearest of which are 1,000,000 light years away. With our giant telescopes of the present time these other universes are readily recognized, and today we know that more than half a million of them exist. These are the 'Island Universes.'

"Such, then, is the vast conception which has come from the development of methods of measuring distance, and we feel that space is boundless. We have broken down the idol of past ages—the idea of a small or limited space."

Out in the great west where the sky is nearly always clear, the better known constellations can be seen and admired under conditions far exceeding those enjoyed by the poet Tennyson, when he wrote in 1842:

"Many a night from yonder ivied casement, ere I
went to rest,
Did I look on great Orion sloping slowly to the
west.
Many a night I saw the Pleiads, rising thro' the
mellow shade,
Glitter like a swarm of fireflies tangled in a silver
braid."

Gloriously rich is a November night when looking southward into the sky one can see Orion "the mighty hunter," to one's left, the Pleiades known as the "seven sisters," just below and a little to the left of overhead, with Castor
(Please turn to page 387)

Armistice Day

November eleventh. Armistice Day.

Perhaps Armistice Day comes with a particular significance this year. It is ten years since the armistice which proved to be the end of the World War was signed. The American Legion has, this year, so recently held its annual convention in Paris. And whatever of fun, whatever of plans, whatever of crowds and elaborately arranged military and national courtesies and ceremonies were carried out en masse as the Legionnaires again joined the French people in their: "Le jour de gloire est arrive!" remembering again the arrival of the day that sent millions of men back to their homes and away from war—whatever of mass ceremonies there were and mass fun and mass sorrowing, there must have been as well, much individual thinking. Thinking about the destinies of nations. Thinking about the inter-dependence of nations. Thinking about the freedom of nations.

And are not these men who make up the army of the ex-service men of the A. E. F., of all American people, those best fitted to patiently and strongly work out through the years, plans for the fulfillment of a stupendous national destiny that will take full cognizance of the inter-dependence of nations?

Individual thinking. Individual rejoicing. Individual sorrowing. Stupendous worth. Stupendous loss. May not from these come a more complete questioning of life's values? And may not from these men who know the stupendous loss and saw and felt the stupendous worth, come a more complete answer to questioning about life's values—the lives of nations and men.

Killed In Action

My father lived his three-score years: my son lived twenty-two;
One looked long back on work well done, and one had all to do—
Yet which the better served his world, I know not, nor do you!

To one life chattered all her lore, till he grew wise and gray;
To one, she whispered only, ere she turned her face away—
Yet which her deeper secret held only they two might say.

Peace gave my father restful days, with love and fame for wage;
War gave my son an unmarked grave, and an unwritten page—
Who shall declare which gift conveyed the greater heritage?
—Isabel MacKay.

- Le Caporal -

Tremble! ye signallers, every man,
Under the glance of Corporal Dan!
Brand new clothes from tip to toe—
All dressed up, and no place to go—
Looks like a scarecrow up the line
But back in billets it's polish and shine.
—When the photographer turned his crank
Dan struck an attitude—"beaucoup swank"
Exposed his flags and stripes and knife,
And the camera took him true to life!

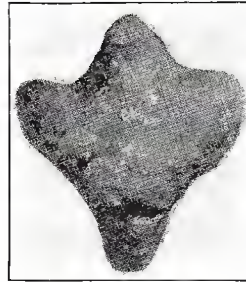
France, May, 1918

D.C. McARTHUR

Footprints of the Long, Long Ago

Since the Superior mines were opened, numerous footprints of giant Dinosaurs that roamed about during the late Cretaceous period have been found, the prints extending downward from the sandy shale roof and into the coal as it was in place.

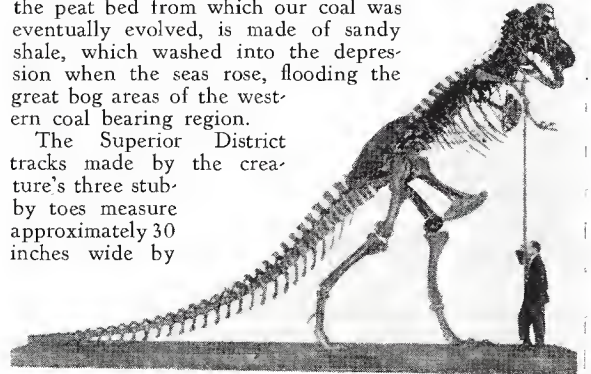
The late Cretaceous measures that extend well over much of the Western half of the United States and Canada, were laid down through processes of sedimentary deposition some 60,000,000 years ago, and the particular species of Dinosaur that tramped about the location of the now thriving city of Superior, Wyoming, is probably that classed as *Tyrannosaurus rex*, "the tyrant King of Saurians." The Dinosaur was both herbivore (plant eating) and carnivore (flesh eating) and the *Tyrannosaurus rex* is the largest known terrestrial carnivorous dinosaur whose existence through the recovery of their skeletons is of record.



Footprint of Dinosaur made in coal bed at Superior, Wyo. Length 36 inches, width 30 inches.

The sketch reproduced from a skeleton recovered and mounted by the American Museum of Natural History, suggests this giant lizard as attaining a height of 18 feet when erect, measuring 47 feet in length. The footprint made by the creature walking across the peat bed from which our coal was eventually evolved, is made of sandy shale, which washed into the depression when the seas rose, flooding the great bog areas of the western coal bearing region.

The Superior District tracks made by the creature's three stubby toes measure approximately 30 inches wide by



Skeleton of Dinosaur, mounted by American Museum of Natural History. Height 18 feet, length 47 feet.

36 inches long, the steps about ten feet apart. The origin of the Dinosaur family is somewhat uncertain, one branch of the tribe bearing a crocodile-like structure of the pelvis, or hips, others with a pelvis resembling a bird.

It Is Nothing

It is nothing to give pension and cottage to the widow who has lost her son; it is nothing to give food and medicine to the workman who has broken his arm, or the decrepit woman wasting in sickness, but it is something to use your time and strength to war with the waywardness and thoughtlessness of mankind; to keep the erring workman in your service till you have made him an unerring one, and to direct your fellow merchant to the opportunity which his judgment would have lost.

—John Ruskin.

Coal the Chief Source of Power Generated at Public- Utility Plants

Washington, September 19.—The total amount of electricity produced at public-utility power plants in 1926 was 73,791,000,000 kilowatt hours, according to a statement just made public by the Geological Survey of the Department of the Interior. Of this total, 47.5 billion kilowatt hours, or 64.5 per cent, was generated by the use of fuels and the remainder by the use of water power. Of the 47.5 billion kilowatt hours produced by the use of fuels, 42.6 billion, or 90 per cent, was generated by the use of coal alone; the remaining 10 per cent of fuel power output was generated by the use of fuel oil, gas, and wood. Coal is thus by far the chief source of power generated at public-utility power plants. In 1926 the power produced from coal was 57.7 per cent of all the power generated; from water power, 35.5 per cent; from oil, 3.1 per cent; from gas, 3.3 per cent; from wood, 0.4 per cent. The use of fuel oil in generating electricity has declined since 1924, when it reached its maximum, and less fuel oil was used in 1926 for this purpose than in any other year since 1918. Indeed, in 1926 the amount of fuel oil consumed by public-utility power plants was only 57 per cent of that used in 1924.

The average rates of consumption of the different kinds of fuel in generating electricity in the United States were as follows: Coal, 1.94 pounds per kilowatt hour; oil, 243 kilowatt hours per barrel; gas, 22 cubic feet per kilowatt hour. The best fuel rates for these different fuels were about as follows: Coal, 0.9 pound per kilowatt hour; oil, 450 kilowatt hours per barrel; gas, 13 cubic feet per kilowatt hour. As these are roughly one-half the average rates, the consumption of fuel by electric public-utility power plants would be reduced one-half if all public-utility power plants produced electricity at the best fuel rates, and the attainment of this degree of efficiency would have conserved more than 20,000,000 tons of coal in 1926, representing a value of about \$75,000,000.

—Coal and Coal Trade Journal.

The Ghost of Your Wasted Past

By J. A. Peterson.

You may never see a miser's ghost,
Or the ghost of a murdered wife;
But scoff as you will some day you'll meet
The ghost of your wasted life.

He'll stare at you when you sit alone
In your chair by the smoldering fire.
But try to disown him, you who dare,
And he'll call you cheat and liar.

He'll call to mind things left undone,
And kind words left unsaid
He will not leave you at the bridge,
But follow you home to bed.

You may scoff at ghosts for all I care,
But even your sneers won't last,
When you're face to face with your own ghost—
The ghost of your wasted past.

—From Pasque Petals.

Tried and True

"What's the trouble between you and old man Brown?" asked Smith of his ancient comrade, Jim White.
"Nothin' at all," replied the latter. "We're the best of friends. If we wasn't how do you suppose we'd get along so well together, fightin' all the time they way we do?"—Pepper Box.

God of the Open Air

Thou who hast made thy dwelling fair
With flowers beneath, above with starry lights,
And set thine altars everywhere—
On mountain heights,
On woodland dim with many a dream,
In valleys bright with springs,
And on the curving capes of every stream,
Thou who has taken to thyself the wings of morning
To abide
Upon the secret places of the sea, and upon far islands,
Where the tide,
Visits hte beauty of untrodden shores,
Waiting for worshippers to come to thee,
In thy great Out-of-Doors!
To thee I turn, to Thee I make my prayer,
God of the Open Air.

—Van Dyke.

Night and the Stars

(Continued from page 385)

and Pollux well up in the southeast. Shifting our gaze toward the northern sky we pick up the Great Dipper with its pointer leading toward Polaris. To the left of Polaris swings the constellation Cygnus "the swan," the stars Alpha, Beta, Delta, Epsilon and Gemma forming the figure of a cross. Above Polaris and a trifle to the left hangs Cassiopeia, like a great letter "W", a brilliant and storied constellation. Greek mythical history teaches us that Cassiopeia was the mother and Cepheus was the father of the princess Andromeda. When the daughter Andromeda was threatened with destruction by a sea monster, Perseus returning from his victory over the Gorgon and bearing the head of Medusa that turned all who viewed it into stone, bade the princess avert her face while he broke the chains that held her, thereafter to bear her away as his bride. At their death, they with Cepheus and Cassiopeia, were placed among the stars as they are yet seen in the northern sky.

Team Work

Everyone in every organization has
and should have an interest in the suc-
cess of very fellow worker.

A business grows only as the indi-
viduals in it grow.

Each of us has certain work to do.

Some of us engaged in one task or
another may be tempted to believe that
our work is comparatively unimportant
—that our performance counts for but
little in the day's work.

But EVERY TASK IS IMPOR-
TANT.

Let's always bear in mind that every
operation is absolutely necessary to all
of the rest of us.



Too Late!

Liza: "An' when dat robbah man said 'Hol' up yo' hands! what did yo' say?"

Rastus: "Me? As jes laffed at him. Ah already had 'em up."—New Haven Register.

It Worked

Magistrate (severely): "The idea of a man of your size beating a poor, weak woman like that!"

Prisoner: "But, your worship, she keeps irritating me all the time."

Magistrate: "How does she irritate you?"

Prisoner: "Why, she keeps saying, 'Hit me! Beat me! Just hit me once, and I'll have you hauled up before that bald-headed old reprobate of a magistrate and see what he'll do to you.'"

Magistrate: "Discharged."

Further Back

"I got a rare old gift for Christmas. One of Caesar's coins."

"That's nothing. I got some of Adam's chewing gum."—Frivol.

Knew the Picture

A patient teacher was trying to show the small boy how to read with expression.

"Where — are — you — going?" read Johnny, in a laborious monotone, with no expression or accent whatever.

"Try that again," said the teacher. "Read as if you were talking. Don't you see that mark at the end?"

Johnny studied the interrogation point long and earnestly, when suddenly an idea seemed to dawn upon him. Then he read triumphantly:

"Where — are — you — going, little — button — hook?"—Frisco Employees' Magazine.

Couldn't Locate It

A colored woman walked up to the ticket agent in a large railroad station and said: "I'd like to get a ticket fo' Magnolia."

The agent looked over his tickets to find one for Magnolia, but as he couldn't he went over to a map to see where it was, but was also unsuccessful.

Thereupon he inquired: "Where is Magnolia, ma'm?"

And the negro woman replied: "Why there she is sitting on that bench over there."

A Light Needed

The stingiest man was scoring the hired man for his extravagance in wanting to carry a lantern in going to call on his best girl.

"The idea," he scoffed, "when I was courtin' I never carried a lantern; I went in the dark."

The hired man proceeded to fill the lantern.

"Yes," he said sadly, "and look what you got."

Is "Molly" Scotch?

Molly came home from her first visit to Sunday School carrying a small bag of chocolates.

"Why, Molly, where did you get the chocolates?" asked her mother.

Molly looked up in surprise. "I bought them with the nickel you gave me," she said. "The minister met me at the door and got me in for nothing."

Unwelcome Recommendation

Mother: "But why all of a sudden don't you like those trousers, Bobby?"

Bobby: "Listen—did you buy them to please dad or to please me?"

"Why, you, of course, Bobby."

"Well, I don't want 'em. Didn't you hear the man say that they'd stand lots of punishment in the seat?"

That Chummy Army

A sentry in an Army camp down South heard footsteps and roared his challenge. From the darkness came the quavering reply:

"Ah's a citizen of de United States wid mah lady frien'."

Instructing the colored rookie as to the proper way to challenge, the sentry sent him on his way. A few minutes later a form approached and in answer to the challenge came:

"Ah's de man yo' tol' to say Ah was a frien' of yo'-all."

Perhaps It's the Exercise

As the dancer took his fair partner down to supper, she seemed to hypnotize the waiter, for he seemed incapable of taking his eyes off her.

At last the dancer could stand it no longer.

"I say, my man," he observed, "what makes you stare so rudely at this lady?"

"It ain't rudeness, sir, believe me, it ain't," returned the waiter. "It's genuine admiration. This is the fifth time she's been down to supper tonight."

Simple

The doctor on his round of golf was crossing the field with his small negro caddie, when the latter opened the conversation with: "Doctor, ain't you got some shoes up yonder in yo' locker, you don't want? I needs some bad."

"Maybe so," said the doctor. "What size do you wear?"

"I dunno, sah, 'cause I ain't never bought none dat-ere-way—I either kin git in 'em, or I can't."—Pacific Coast Bulletin.

Damages

"Oh, John, the car is running away!" screamed the excited woman driver.

"Can't you stop it?" asked her worried husband.

"No."

"Well, then, see if you can't run it into something cheap."

Why Worry??

Anxious Wife—"Abie, have you done anything about that Black Hand letter?"

Abie—"Oh, ain't I, though? I turned it over to my insurance company. They got \$20,000 tied up in me; let them worry."

Pretty Near His Limit

"Wouldn't you like another piece of cake, dear?" asked the good lady of the urchin at the end of the Christmas dinner.

"No'm, I guess not," said the boy dubiously. "I could chew it, but I couldn't swallow it."—Ex.

From the Distance

Jacob was negotiating a loan from his brother Solly. Solly was willing to make an advance, but demanded 9 per cent.

"Well, said Jacob, "I ain't kickin', y' understand, but vot'll our poor dear, dead fader say ven he looks down and sees his son gouging 9 per cent out of his own flesh and blood?"

"Don't you worry about that, Jacob," replied the lender affably, "from where he is it'll look like 6 per cent."

Harvests of Roses

Our Thanksgiving Day was originally a Harvest Home festival, thanksgiving for a harvest the gathering of which had just been completed. In Canada until very recently the day was arranged each year according to the lateness or otherwise of the season and so the completion of the harvest. Harvests. Harvests.

Thinking about harvests while admiring these beautiful roses grown in the garden of Mr. E. C. Way, Tono, Washington, made me remember other harvests of roses I've seen.

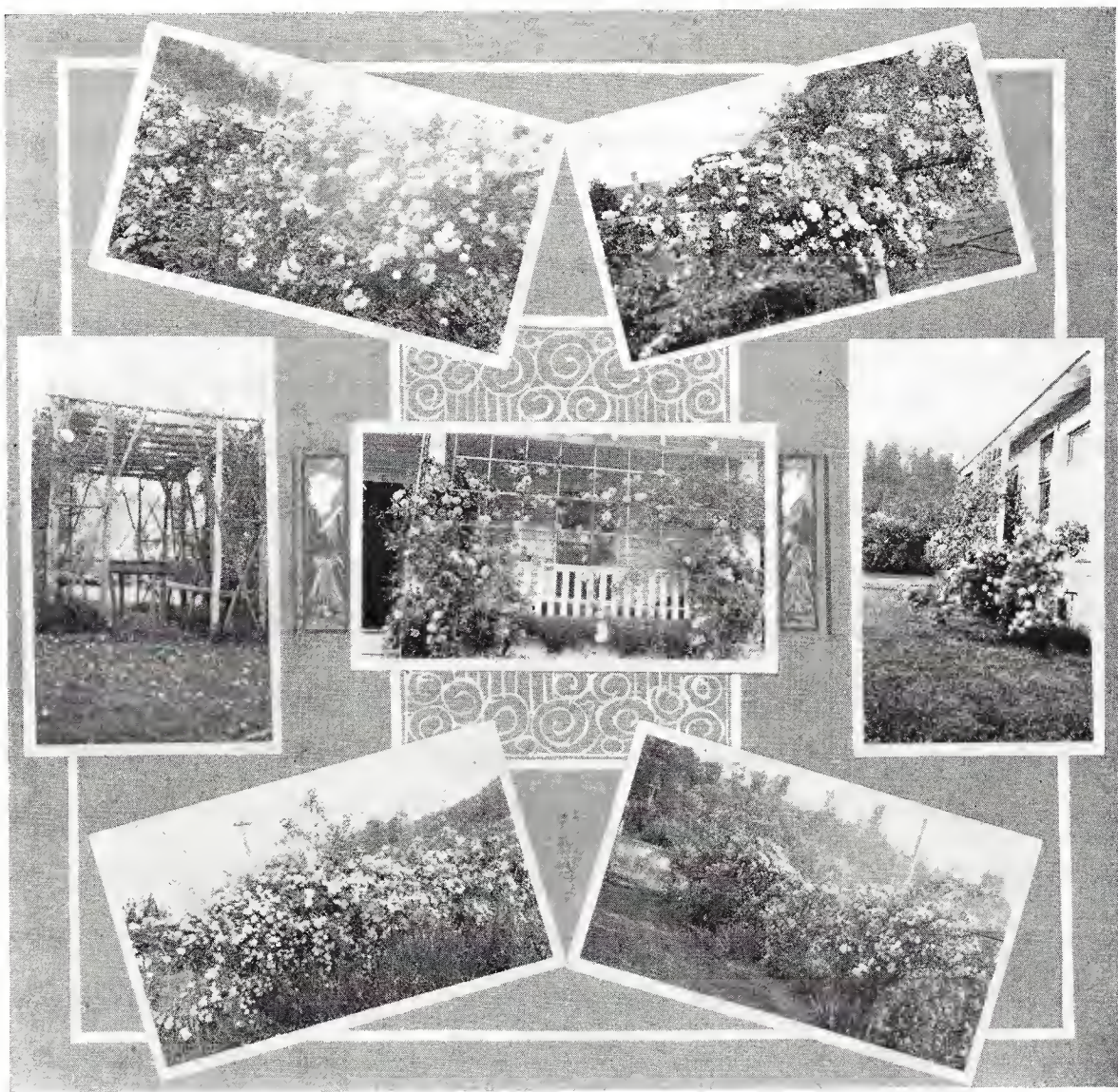
Harvests of roses! There are so many of them. I've just seen a careful young mother who is reaping a harvest of roses after several years of especial care of a rather delicate little daughter. Harvest of roses in the splendidly robust child she's become, the color in her beauti-

Recently I met again a little girl whom I knew as a struggling music student. She felt she had a voice and, although a graduate of a good conservatory and prepared to teach, went on studying. She's reaping a harvest of a most wonderfully developed talent through which she gives great pleasure. Harvests for tilling. Harvests for effort. Harvest for the young man who dares go into business and brave the pioneer and lean years.

Harvests of roses for artists who till their fields by a thorough study of technique and line and color.

Harvests of roses in friendships for a young woman in the western town from which these garden roses come and who gives her interest and sympathy freely. Harvests of friendship and an enriched life.

Harvests of roses for the mothers who patiently do the picking up for, the advising, the work and planning and



Rose Harvest, Tono, Washington.

fully dimpled cheeks. Harvests of roses for students who work through to the end of their problems. Harvests of roses for the community which studies, faces and seeks solution for its community problems. Harvests of roses in the development of fine young men and women for the community which maintains fine standards.

scheming for their children. Harvests of roses in the love and admiration of these same children. Harvests of roses, the most beautiful and fragrant roses for mothers.

Harvests of roses for those who will tend and till the bushes and vines of character and worth, who wish roses. Harvests of roses for rose-thinking effort.



How Wide Is My World?

The World stands out on either side
No wider than the heart is wide;
Above the world is stretched the sky
No higher than the soul is high.

The heart can push 'the sea and land
Farther away on either hand,
The soul can split the sky in two
And let the face of God shine through.

—Edna St. Vincent Millay.

National Girl Scout Week comes in October, ninth to fifteenth. May I give you this poem of Edna Millay's as a message for our week. I know that the troops will all observe it, especially Mother's Day, Father's Day and Girl Scout Sunday. We had such lots of fun getting that meal for mother last year and finding things to do for father. It's not so easy to find things to do for our fathers is it? And, hey there, no fair asking daddy to the show and then letting him take us!

And Girl Scout Sunday. Again we'll see,
"her uniformed back in the family pew."

Somehow, while we think of scouting as a series of activities often, we do each of us, like to think of it too as a code to live by. We go in for out-door things because we want to. We like them! And we go in for scouting because we want to be scoutly in our way of thinking and we want to adventure with the girls who also enjoy scout-

ing things. So much for our every day, every week contacts and thinking and activities. During National Girl Scout Week let's spread it to our families and church and outside.

Out of Doors

To run in the wind, to crunch the snow;
To know where the first wild flowers grow.

To feel things growing in the spring;
To hear a tiny song-bird sing;

To smell the sweetness of new-mown hay;
To hear what the brooklets have to say;

To scuffle the dry leaves in the fall;
To feel the furze in a chestnut ball;

To see the sunset across the lake;
To hear the cry that the weird loons make;

To see the lacy trees undressed;
To find a hidden bluebird's nest;

For these, O God, I make my prayer,—
These glorious joys of the open air.

—Louise S. Andrews.



A Girl Scout Troop in Washington takes Mrs. Calvin Coolidge a copy of "The American Girl," in which is a story about herself.

Hanna Girl Scouts Camp at Rattlesnake

By Eilleen Cook.

Eilleen who tells us about the camp of the Hanna troop of Girl Scouts is also the author of the song to Whispering Pines, as the Hanna girls call their camp.—EDITOR.

Whispering Pines once more we make the hills all
around you to ring,
With laughter and song the echo prolong, as with
hearts light and free we do sing.

Under the stars at Whispering Pines where romance
and laughter abide,
Night after night the moon is our light, that hangs
on the mountain side;
Up in the trees, the whispering breeze makes music
like sweet fairy chimes,
Once more we're here, old camp you're so dear;
we love you our Whispering Pines.



Hanna Girl Scouts at camp. Reading from left to right they are: Ruby Fearne, Hazel Jones, Edith Crawford, Eilleen Cook, Lucy Case, Helen Renny. Seated: Leona Tate, Mrs. Hugh Renny, Camp Director.

This is our new camp song and I'm glad to send it to you and the news about camp too. We were seven girls. Shorty was back from the University and came out with us so we were seven girls and Mrs. Renny who was our Camp Mother.

We had a wonderful time, no difficulties, not even an accident for we First Aiders to try our work on. Perhaps because we all tried to practice our First Aid Motto: "Safety First."

Oh, and we had the best times around the Camp fire; it was perfect, all because we had the Scout spirit and tried to take our Scout Laws to camp with us.

We climbed Sheep Mountain and were stiff for a whole day afterward. We didn't do Elk Mountain during our own camp, but while the boys were out we visited and climbed it with them. Mrs. Renny and "Doodles" came with us, the best scouts of all. It was a stiff climb but we reached the top at last and put our names up there on the very highest peak. It's a grand feeling—to make the goal.

We got wet coming down but didn't mind because we laughed at each other's comical appearance. Here's to camp, the best part of scouting say we!

Community Spirit Again Proves a Winner For Cumberland

IT WAS a beautiful fall evening in old Cumberland with the mid-October sun touching the serated outcrop of the rocks forming the footwall of the coal bed, the backbone of rocks so well remembered by all who have put in time in that pleasant district. Subdued bustling was in the air, for it was Saturday, the 15th of the month, and payday in a mining field where the earnings have always been large by comparison with the other coal mining fields of the country.

Chiefly noticeable as the most active hustler was our old friend, John D. Jones, the fire boss in Mine No. 1, on this day functioning as chairman of the committee chosen for the celebration to be tendered the winning first-aid and mine rescue team. At the big field day in Rock Springs a Cumberland team as usual had won first place. It was Lyman Fearn's old team from No. 2 with a new Captain and three new, younger, men on it it is true, but certainly a most able and efficient team. The boys had received the championship cup, and excellent, serviceable, wrist watches, but their greatest reward was to be given them in the enthusiastic appreciation felt by the townspeople in the mining community that is their home.

At 8:30 P. M. the town foregathered in the community meeting hall to be entertained by the program which is set forth below:

Address.....Thomas Gibson
Piano Solo—"Rustle of Spring"....Miss Lola Buchanan
Vocal Solo.....Ethel Edwards
Cornet Solo—"Swiss Boy"...Parley Young, Band Leader
Scottish Dance—Highland Fling.....Lulu Bean
Recitation—"Wishing".....Mrs. Ballantyne
Address.....George B. Pryde
Sword Dance.....William McPhie
Closing Remarks...Robert Woolrich, Miner No. 2 South

Certain it is that co-operation and community spirit are to be seen and felt at a maximum in Cumberland. The entertainers on the program did their very best and were appreciatively received by the happy audience. The ladies and the men of the Entertainment Committee left no deed undone to provide for the pleasure and comfort of all. Sandwich making, cake making, and the arrangement for the dishes and tables all meant work, and the people cheerfully gave of their best. The Cumberland orchestra set the dancers' feet to moving and played on untiringly, with "B Flat Tom" and his clarinet rendering his part in a most workmanlike manner from the right end of the group of assembled musicians. And when Cumberland dances they dance, and when they party THEY PARTY, for surely such dancers were never seen; infants and grandmothers all responding to the harmony of the home-town orchestra. Nor should the grandfathers be forgotten as they were much in evidence in executing the dances and in arranging that all present should become acquainted and have the best kind of a time.

Young man George Blacker was as busy as a bee handling introductions, herding youngsters, and making announcements, not forgetting withal to shake a very able foot in between his other activities.

The very large crowd was treated to an excellent supper, and thereafter the dancing carried on with renewed vigor. When last viewed, the party was going strong at 12:30 A. M., proof sufficient of the remarkable spirit and enjoyment of a community of people who boost the game, and go after their pleasures with a will to accomplish much.

A Clean Story

Said one of the Gold Dust Twins: "Here's our chance to make a cleaning!"

"Nothing doing!" replied the other, "Lux against us."
—University of Utah Y. News.



Loraine and Her Little People Mr. Jack Frost and His Merry Men

By Elizabeth Gordon.

ONE morning in November, Loraine sat by the window thinking of the fun she would have next day, which would be Thanksgiving. Her brother had promised her that if the ice was strong he would take her on his sled when he went skating.

"I do hope it will be awfully cold tonight," said Loraine to herself. "I shall be so disappointed if I cannot go on the pond to-morrow." Suddenly some one pinched her ear playfully, and she was surprised and delighted to see a funny little chap perched on the window sill.

"Why," said Loraine, "who are you? I don't seem to remember you."

"Don't tell me you've forgotten me," said the elf. "I'm Jack Frost, and Sun Beam said you needed me. He was right; I shall have to pinch some color into those pale cheeks. I'm a friend to little folks, I am," he went on a bit swaggeringly, "and I wish older people wouldn't frighten children with their stories about me. I pinch the fingers and toes occasionally, it is true; but that is because it is good for children to run about and stamp their feet.

"What can I do for you to-day, Loraine?" asked the merry little king. "Anything special?"

"Oh, yes, King Frost," said Loraine. "I 'specially want the ice to be strong on the pond to-morrow, and I shall be so thankful if you will make it good and strong."

"It shall be attended to," said Jack Frost. "And now, little lady, would you like to see my artists at their work?"

"Oh, yes, Mr. Jack Frost, please," said Loraine.

The merry little chap gave a sharp whistle, and instantly the room was filled with shiny little men, each with a sharp pencil which looked like a tiny icicle. One drew on the windowpane a picture of an old castle. Another made a sketch of St. Nicholas and his reindeer; another of a frozen pond bordered with reeds and grasses.

And one artist who seemed a little more skillful than the rest made a picture of tall mountains which seemed to reach up into a sky full of silver stars. And then they put on their funny little caps and went away.

"Good-by, Loraine," said Jack Frost. "If we get your ice ready for you by to-morrow we shall have to work very hard."

Then he whistled to his crew, and they all trooped away, singing a song which sounded like this:

Tinkle, tinkle, tinkle,
Ice without a wrinkle
We will make on pond and lake,
And spread it smoothly down.

Tinkle, tinkle, tinkle,
Ice without a wrinkle
So every one may have some fun,
In country or in town.

Jack Frost kept his word nobly, and on Thanksgiving Day there was no more thankful little girl in all the world than Loraine, as she flew over the beautiful smooth ice which her friends the Little People had made for her.

It was such a delightful thing to be out once more in the crisp cool air instead of being shut up in rooms, to laugh and talk with the other children and be with them in happy play.

Just as they were starting for home Loraine heard a little chuckle, and there, perched beside her on the sled, was Jack Frost in a gorgeous new suit trimmed with tiny icicles.

"Good night, dear Jack Frost," said Loraine. "Thank you for a happy day."

The Horn of Plenty

By Ovid (Adapted).

AENEUS, King of Aetolia, had a daughter whose name was Deianira. So beautiful was the maiden that her fame spread throughout the world, and many princes came to woo her. Among these were two strangers, who drove all the other suitors from the hall of King Aeneus.

One was Hercules, huge of limb and broad of shoulder. He was clad in the skins of beasts, and carried in his hand a knotted club. His tangled hair hung down upon his brawny neck, and his fierce eyes gleamed from behind his shaggy brows.

The other stranger was Achelous, god of the Calydonian River. Slender and graceful was he, and clad in flowing green raiment. In his hand he carried a staff of plaited reeds, and on his head was a crown of water-lilies. His voice was soft and caressing, like the gentle murmur of summer brooks.

"O King Aeneus," said Achelous, standing before the throne, "behold I am the King of Waters. If thou wilt receive me as thy son-in-law I will

make the beautiful Deianira queen of my river kingdom."

"King Aeneus," said the mighty Hercules, stepping forward, "Deianira is mine, and I will not yield her to this river-god."

"Impertinent stranger!" cried Achelous, turning toward the hero, while his voice rose till it sounded like the thunder of distant cataracts, and his green garment changed to the blackness of night,—“impertinent stranger! how darest thou claim this maiden,—thou who hast mortal blood in thy veins! Behold me, the god Achelous, the powerful King of the Waters! I wind with majesty through the rich lands of my wide realms. I make all the fields through which I flow beautiful with grass and flowers. By my right divine I claim this maiden."

But with scowling eye and rising wrath Hercules made answer. "Thou wouldst fight with words, like a woman, while I would win by my strength! My right hand is better than my tongue. If thou wouldst have the maiden, then must thou first overcome me in combat."

Thereupon Achelous threw off his raiment and began to prepare himself for the struggle. Hercules took off his garment of beasts' skins, and cast aside his club. The two then anointed their bodies with oil, and threw yellow sand upon themselves.

They took their places, they attacked, they retired, they rushed again to the conflict. They stood firm, and they yielded not. Long they bravely wrestled and fought; till at length Hercules by his might overcame Achelous and bore him to the ground. He pressed him down, and, while the fallen river-god lay panting for breath, the hero seized him by the neck.

Then did Achelous have recourse to his magic arts. Transforming himself into a serpent he escaped from the hero. He twisted his body into winding folds, and darted out his forked tongue with frightful hissing.

But Hercules laughed mockingly, and cried out: "Ah, Achelous! While yet in my cradle I strangled two serpents! And what art thou compared to the Hydra whose hundred heads I cut off? Every time I cut off one head two others grew in its place. Yet did I conquer that horror, in spite of its branching serpents that darted from every wound! Thinkest thou, then, that I fear thee, thou mimic snake?" And even as he spoke he gripped, as with a pair of pincers, the back of the river-god's head.

And Achelous struggled in vain to escape. Then, again having recourse to his magic, he became a raging bull, and renewed the fight. But Hercules, that mighty hero, threw his huge arms over the brawny neck of the bull, and dragged him about. Then seizing hold of his horns, he bent his head to one side, and bearing down fastened them into the ground. And that was not enough, but with relentless hand he broke one of the horns, and tore it from Achelous's forehead.

The river-god returned to his own shape. He roared aloud with rage and pain, and hiding his mutilated head in his mantle, rushed from the hall and plunged into the swirling waters of his stream.

Then the goddess of Plenty, and all the Wood-Nymphs and Water-Nymphs came forward to greet the conqueror with song and dance. They took the huge horn of Achelous and heaped it high with the rich and glowing fruits and flowers of autumn. They wreathed it with vines and with clustering grapes, and bearing it aloft presented it to Hercules and his beautiful bride Deianira.

And ever since that day has the Horn of Plenty gladdened men's hearts at Harvest-Time.

Reliance Woman's Club Gives Annual Reception to Teaching Staff

One of the functions which has marked itself on the calendar of the Reliance Woman's Club in red letters and which is looked forward to in the community each year is the Annual Club Reception to the teachers of the local school and the district High School staff.

This year on September 20th, the Woman's Club room in the Bungalow was crowded with the women of the community, mothers who were eager to extend a welcome to the new teachers and to see old friends after the vacation. In the receiving line were Mrs. S. Buckles and Mrs. James Rafferty, President and Vice President of the Club; members of the School Board and School Superintendent Hanna.

Mrs. Pat Burns, Mrs. Tolzi and Mrs. Zeiher were the refreshment committee while Mrs. Z. Portwood and Mrs. R. Ebeling arranged the evening's delightful entertainment features. Mr. Tom Hall and the local orchestra played beautifully throughout the reception and for the dancing which followed.

The opening address of the program was made by Mr. Mike Korogi, President of the School Board, his welcome and promise of loyal support being responded to, on behalf of the teachers, by Mr. Leo. Hanna, superintendent; Mr. Tom Hall played a cornet solo and Mrs. Jane Robertson sang a delightful number. Miss Vera Jones, introduced as "our whistling girl" gave her usual charming rendition and Mrs. Thomas Marshall delighted with a beautiful old song accompanied by Mrs. Culver. Mr. William Stark forgot his Scottish songs and sang a negro melody most pleasingly. Then Mrs. Portwood called on Mrs. Matt Medill, who boosted for the Woman's Club and the things it stands for while she expressed her pleasure at meeting so many women in Reliance, more, she said, than she had known there were and surely enough to make her feel more at home in her new town.

Altogether the reception was a delightful function, delightfully arranged.

What Rules the World

They say that man is mighty,
He governs land and sea,
He wields a mighty scepter
O'er lesser powers than he;

But mightier power and stronger
Man from his throne has hurled,
For the hand that rocks the cradle
Is the hand that rules the world.

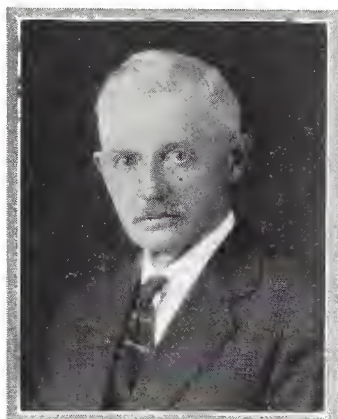
—W. R. Wallace.



Senator John Park of Rock Springs and Wyoming

Anywhere in Wyoming, around the coal towns of the southwest, in the beauty spots of the north, at the State Capital, on the Laramie Plains—yes, and far beyond Wyoming, Senator John Park, genial and interesting Scot, is known, his opinions on State and Federal questions sought and listened to; his stories of early days, of travel, of ocean voyage and other companions, of the mines and mining men, are enjoyed.

Senator Park is a Scot, was born in Lanarkshire but was brought up and educated in Ayrshire, only fifteen miles from the birth-town of "Bobby" Burns, which town he often visited as a boy. He came to the United States in 1879 and to Rock Springs in 1887.



Senator John Park of Rock Springs, Wyoming.

In the early 90's, when No. 1 Mine was one of the largest producers in the West, Mr. Park was employed as Mine Foreman. He still retains his interest in mining and mining problems.

He has re-visited Scotland seven different times since coming to this country and says he never fails to enjoy the trip and the Old Lands. His last visit was six years ago when Great Britain was carrying evidences of the strain of the World War.

Senator Park, like his old and valued friend, Mayor Bunning, holds an abiding confidence in the future of Rock Springs, the Park Hotel built by him a fair expression of what he thinks of the city. When civic betterments appear in the offing he is among the first to study, analyze, and when found desirable, endorse their acceptance. The West and Wyoming gained a good citizen when John Park left Scotia, and Mrs. Park is a good and gracious second to her husband in all forward looking work.

Mr. and Mrs. Robert Munn Have Some Wheat to Show Us

No wheat here. Our children have never seen wheat. It couldn't be grown here!

Gone is another old idea—that wheat couldn't grow in our desert, coal part of Wyoming. Of course it can grow, has grown. And here are Mr. and Mrs. Robert Leo Munn of the Pump Station at No. Six Wells to show us a splendid sheaf of sample ears—grown in the garden of the station.

Robert Munn was born in Raymond City, West Virginia. He lived there and in Fort Dodge, Iowa, until he was

twenty-two, when he started to roam the West as a prospector and hunter in Wyoming, Washington and Oregon. He has some wonderful specimens of gold nuggets and may with his old gold pan beside him still dream of the days when he was on his way over the hills and "only two feet from a million dollars" like the rest of the prospectors.



Mr. and Mrs. Robert Munn and their son James Lynip.

But it was an interesting life our friend lived, and interesting indeed is an hour spent with him in his garden where is always a choice variety of flowers and vegetables—and this year a small field of wheat grown as an experiment and now headed out in a way that would make a Dakota farmer envious.

He has a brace of beautiful Irish setter dogs and several trophies of the hunt of the old days—and the days of now too, from the big game country to the north; the latter supplied by Mr. James Lynip, son of Mr. and Mrs. Robert Munn who give us this wheat to add to our Thanksgiving collection.



Picture of a gathering at Tono many years ago.



Another Tono party in 1915.

Have You Ever Tried This Dish?

A Union Pacific woman is said to have asked her husband to copy the radio recipe one morning. The husband did his best, but got two stations at once. One was broadcasting the morning exercises and the other the recipe. This is what he got: "Hands on hips, place one cup of flour on shoulders. Raise knees and depress toes, and wash thoroughly in one-half cup of milk. In four counts raise the lower legs and mash two hard-boiled eggs in a sieve. Repeat six times. Inhale one-half teaspoon of baking powder and one cup of flour, breathe naturally and exhale and sift. Attention: Jump to a squatting position and bend white of egg backward and forward over head and in four counts make a stiff dough that will stretch at the waist. Lie flat on the floor and roll into a marble the size of a walnut. Hop to a standstill in boiling water, but do not boil into a gallop afterwards. In ten minutes remove from fire and dry with a towel. Breathe naturally, dress in warm flannels, and serve with fish soup."



Reliance

Mrs. Thomas Marshall entertained a group of ladies at cards at her home Friday, October 7th, the prize winners being Mrs. H. E. Buckles, first; Mrs. Rudolph Ebeling, second; Mrs. G. D. Baxter, consolation and Mrs. F. L. Roberts, cut prize. A tasty luncheon was served. Mrs. Baxter assisted the hostess.

A Bridge Club has been organized by the ladies of Reliance, the meetings being held every week at the homes of the various members. The club has been named the Wednesday Evening Bridge Club. The first meeting was held at the home of Mrs. Z. A. Portwood, Wednesday evening, October 12th. Mrs. H. A. Lawrence and Mrs. L. A. Hanna were the prize winners. A delightful time was reported by all. Mrs. Ebeling is the next hostess.

Delbert Sisk was taken greatly by surprise when fourteen of his friends called upon him Friday evening, October 7th, and reminded him of his birthday. A jolly time was had in playing games and a delicious lunch was enjoyed by those present.

Those in the hospital receiving medical treatment are

Millard Johnson, Windom Thomas, Martin Stalick, Matt Pivac, Joe Kramer, and Mrs. Victor Blakely. Mrs. R. Roccabruna and Emille Brontin were also recent patients, but are now at home.

Leo. A. Hann, accompanied by Harold Korogi, left for Cheyenne Wednesday, October 12th, where he is attending the Teachers' Convention.

Mr. and Mrs. C. Caresia are the proud parents of a baby boy. The young man will be named Wallace Fred.

An interesting wedding took place Saturday, October 1st, at the home of Elijah Danials, the contracting parties being Miss Helen Freeman and John Bell of Winton. Their attendants were Miss Louise Syme, of Rock Springs, and Dave Freeman of this city. Miss Freeman is the youngest daughter of Mrs. Eliza Freeman. The family were residents of this city for many years, and until recently Mrs. Freeman and Helen have made their home in Rock Springs, where Helen was employed at the Telephone Office. The young couple will reside at Winton, where Mr. Bell is employed.



Lila Marie Husak, age two years, daughter of Mr. and Mrs. Steve Husak, Reliance.

Several "showers" were given in honor of Helen Freeman here recently. The first was at the home of Mrs. Jane Robertson in the form of a "Tin Shower." It was given by a number of girls. She was the recipient of many useful gifts. Another one was given at the Bungalow Club room by a group of ladies. A jolly time was had by all, especially when the bride-to-be opened the many mysterious packages presented her.

Mr. and Mrs. Joe Palomino and two children recently returned from a short vacation in Colorado with relatives.

Among the new residents in camp are: Mr. and Mrs. Kenneth Wilcox, of Cumberland, Mr. and Mrs. Victor Blakely and family, of Rock Springs, Mr. and Mrs. Louis Stevens, Mr. and Mrs. Floyd Hindson, of Park City, Utah, Mr. and Mrs. Pete Grabar, of Cumberland and Mr. and Mrs. Joe Fearn.

Mrs. R. Ebeling enjoyed a short visit with friends in Cumberland recently.

Mrs. Floyd Roberts visited with relatives in Cokeville a short time ago.

John T. Reese was on the sick list several days last week.

The Woman's Club sponsored a "Get Acquainted" party for the parents and teachers September 28th. The following enjoyable program was given:

Opening Address	Mike Korogi
Response	L. A. Hanna
Cornet Solo	Thomas Hall
	(Accompanied by L. Sturholm)
Vocal Solo	Mrs. Jane Robertson
	(Accompanied by L. Sturholm)
Cornet Solo	Thomas Hall
	(Accompanied by D. Robertson)
Whistling Selections	Miss Vera Jones
Vocal Solo	Mrs. J. A. Marshall
	(Accompanied by Mrs. Harry Culver.)

The Reliance Orchestra played several selections. Refreshments were served.

Rock Springs

Mr. and Mrs. Ray Knill have moved in from Superior and are living on Sherman Street.

James Smith recently had his right hand injured while at work in No. 8 Mine.

Mrs. Charles Crofts and son, Harry, have returned from a two weeks' visit in Idaho Falls, Idaho.

Mrs. Jake McDonald is visiting her parents, Mr. and Mrs. James Overy, in Salt Lake City.

Mr. and Mrs. John McTee, Sr., left on October 5th for a visit in Salt Lake City, Utah.

Thomas Whalen is confined to his home with an attack of rheumatism.

Wilbur, son of Mr. and Mrs. George Parr, is ill at his home in the Belmont Addition.

Dan Daniels and family visited here with relatives on October 1st. They have moved from Cumberland to Winton, where Mr. Daniels is now employed.

Andrew Menghini, Sr., has returned from a vacation in Utah and Idaho.

Dan Potter is confined to his home, where he is recovering from injuries received on September 25th, when he fell from a seventeen-foot pole.

Miss Evelyn Daniels, of Burnt Fork, visited over the week-end with her parents, Mr. and Mrs. Eliga Daniels.

Edward Wood and sons, of Ogden, are visiting at the home of Mr. and Mrs. Frank Meighan.

Mr. and Mrs. Moses E. Harvey are in Salt Lake City, where Mrs. Harvey is receiving medical treatment for her eyes.

Mrs. Ed Parr entertained the ladies of the Mooseheart Legion at her home at No. 3, on Wednesday, October 5th.

John Shuttleworth, of Youngstown, Ohio, is visiting with his sister, Mrs. Ed Walsh.

Mr. and Mrs. John Giovale have returned from a three months' visit with relatives and friends in Italy.

Mrs. Dorothy Waller, of Lava Hot Springs, Idaho, is visiting with her parents, Mr. and Mrs. George N. Darling.

Mr. and Mrs. Ernest Anselmi have returned from a two weeks' vacation spent with relatives in Ogden, Utah.

Mr. and Mrs. Jay Outsen have returned to deertrail, Colorado, after a ten days' visit with friends and relatives here.

The many friends of Alfred Robertson will be sorry to learn that he is still confined to his home, where he is recovering from injuries received in No. 8 Mine on August 7th.

Mr. and Mrs. Harold Cook were called to Salt Lake City on October 12th, on account of the serious illness of one of Mrs. Cook's uncles.

Mr. and Mrs. David Wilde have moved into the house recently vacated by Wm. Armstrong on Eleventh Street.

Angus Hatt and Dan Hackett have returned from a deer hunt in the south country.

Ed Walsh has been confined to his home for two weeks with a badly sprained ankle, received while at work on No. 4 Tipple.

Wm. Murray, of the U. S. Bureau of Mines, was a business visitor at the Mine Office on Tuesday, October 11th.

Tony Behring and Alfred Russell have returned from a big game hunt at Jackson's Hole, each bringing home an elk.

Cumberland

Misses Clara and Laura Ackerlund, of Salt Lake, spent several weeks in Cumberland visiting with their aunt, Mrs. Axel Johnson.

Victor Scepansky, the bookkeeper at the store, spent his vacation at his former home, Franklin, Kansas.

Mrs. Ebeling, of Reliance, has been visiting at the home of Mrs. Axel Johnson.

Mrs. Bert Williams, Rock Springs, has been the guest of Mrs. Seth Ackerlund.

Mrs. Wright Walker entertained at cards in honor of Mrs. Bert Williams. Other out of town guests were Mrs. Ebeling and Mrs. Dan Gardner of Reliance.



June Robinson and Anna Farnsworth of Cumberland with Bob and Blackie, pet dogs.

Miss Yolanda Angeli and Mr. Bert Galassi were married in Kemmerer, Saturday, October 1. A wedding dance was given at No. 1 Hall.

Miss Stella Welsh, daughter of Mr. and Mrs. John T. Welsh, and Mrs. James Hunter were married at Paris, Idaho, September 18.

Miss Signa Robinson has been able to return home from Kemmerer Hospital where she has been confined for several weeks.

Mrs. Dan Gardner and children of Reliance are visiting her

parents, Mr. and Mrs. William McIntosh.

Little Patsy Campbell has had the measles.

Mrs. Martin Rieva, Mrs. Charles Clark, Mrs. Jack Goddard, Mrs. Wright Walker, Mrs. Ed. Bakka, Mrs. McIntosh and Mrs. Walter Walsh have entertained the sewing club during the month.

Mrs. Frank Subic has returned from Ogden, Utah.

Mr. and Mrs. Dan Daniels and family have moved to Winton.

Mrs. Wm. McIntosh entertained for Mrs. Dan Gardner and Mrs. Ebeling, of Reliance, during their visit here.

Mr. A. L. Anderson and Mr. Jefferis were business visitors during the month.

We are very proud of our Cumberland First Aid and Mine Rescue Team, winners of first and third prizes at the First Aid Meet held at Rock Springs.

Mrs. Archie Buchanan has been ill, but is improving rapidly.

Hanna

A reception was held at the Methodist Church on September 20th in honor of Rev. and Mrs. Johnson and the school teachers. The evening was spent in playing games after which refreshments were served.

Mr. and Mrs. T. H. Butler and son, Tom, and Rodney McClennan motored to Rock Springs to attend the First Aid Meet.

Mrs. J. C. Mylroie, of Laramie, spent a few days with Mrs. O. C. Buehler enroute from Rock Springs where she attended the Methodist Conference.

Mr. E. V. Swearns attended the Methodist Conference in Rock Springs.

News was received here of the marriage of Miss Olive Williams and Thomas Hughes at Salt Lake on September 15th. Miss Williams was a former teacher in the Hanna schools and Mr. Hughes was employed by the John W. Hay Coal Company before he moved to Kenilworth, Utah, where he is now employed. Their many Hanna friends wish them the greatest of happiness in their married life.

The Clio Bridge Club met at the home of Mrs. John Hughes on Saturday, September 24th.

The funeral of Victor Vanne, who died at Lava Hot Springs, Idaho, was held at the Finn Hall on September 25th. Mr. Vanne had spent the past four months at Lava Hot Springs seeking relief from rheumatism. He leaves to mourn his death, his wife, Mrs. Victor Vanne.

Mrs. Ben Watkins and son, Alfred, returned from

Rochester, Minnesota, where the latter underwent an operation at Mayo Brothers' Hospital.

Miss Amy Boam was the incentive for several parties before her departure to Los Angeles, California, where she will stay indefinitely.

Mr. Austin O'Malley, Sr., and son, Austin O'Malley, Jr., of Wildhorse, Colorado, left Hanna for Tacoma, Washington, by auto on September 22nd.

The "Jolly 500" Club met at the home of Mrs. Wm. Nelson for the first meeting of the winter on Thursday, September 15th.

Mrs. John Jackson and son returned from a summer's vacation in England.

The members of the Ted Wilkes Post No. 27 of the American Legion held a banquet at the Hanna Hotel on Tuesday, October 3rd.

The school Gymnasium was the scene of the Freshmen Initiation Party on September 30th. The Sophomores had a very novel and interesting entertainment for the "Freshies," after which the Seniors gave a dance and the Juniors served delicious refreshments.

Mrs. T. H. Butler entertained the 500 card club at her home on Saturday, October 1st.

Mr. Gust Malberg returned from a motor trip to Los Angeles, California. Sylvester Huhtala who accompanied him has accepted employment and will remain there.

The funeral of Larry Salo, who died at the Hanna Hospital on October 6, was held at the Finn Hall on Sunday, October 9th, and interment made at the Hanna cemetery. He is survived by his mother and father, Mr. and Mrs. Oscar Salo, two brothers and a sister.

Winton

Mr. Gerald Neal and family have returned from a vacation spent in the North Country. So far we have been unable to learn whether or not Jerry brought home a deer.

Quite a few of the Wintonites have taken advantage of the big game season opening to make for the haunts of the elk and deer. The hunters include "Doc" Harris and "Pat" Swanson, who went out merely for the sport—both of them being "Great Game Conservationists."

New arrivals in the camp this month are: Mr. and Mrs. Dan Daniels and family, from Cumberland, and Mr. and Mrs. Winston Funk from Portland, Oregon.

Johnny Retford has returned to Rock Springs after spending the past month or so at Winton.

The Scouts gave a very successful dance at the Amusement Hall, Saturday night, October 15th. The proceeds were applied to the upkeep of the Southern Wyoming Scout Council. A dance is planned every Saturday night—all organizations participating.

The Amusement Hall and Candy Kitchen have been re-decorated the past month.

Dr. Harris of Nebraska has been visiting at the home of his son, Dr. William D. Harris, during the past month.

The Parent-Teachers have resumed their monthly meetings, and have planned a number of entertainments for the coming season.

Louis Lemich and family have returned to Winton, after spending the summer in Utah.

Frank Baxter left Saturday, October 15th, for Ogden, Utah, called there by the serious illness of his son, Elmo.



Meriam and Freddie Grindle, children of Mr. and Mrs. Fred Grindle, Winton, Wyoming.

The Winton Band is planning a free dance and supper for the Camp, to be held Saturday, October 22nd. A good time is anticipated.

The Community Council held a successful meeting at the Mine Office this month, the committees for the coming

season having been appointed. Mr. J. E. Scanlin was elected president to fill the unexpired term of Stewart McDowell, who is now residing in Rock Springs.

J. I. Williams, part time executive for the Southern Wyoming Scout Council, was at Winton on October 22nd for the purpose of giving examinations and tests to the Boy Scouts. He will make a visit here once a month to help the local Scout Master.

"Safety Tom" Gib-

son has been a visitor at Winton this month, going over First Aid work with the team and supervising the placing of safety signs.

Mrs. Enid McKinny visited with Mrs. John Baird the past month.

Mr. Post has organized a School Orchestra and is busy practicing with the gang once a week.

Mr. and Mrs. Johnny Bell are at home to their many friends here at Winton, after a brief honeymoon. Mrs. Bell before her marriage, which occurred early in October, was Miss Helen Freeman of Reliance. The Camp extends its hearty congratulations to Mr. and Mrs. Bell.

Superior

Mrs. L. Anselmi, formerly Miss Lillian Malmberg, of Los Angeles, and Hilda Malmberg, of Hanna, visited with Anna McLeod during the month.

Miss Fernessa Purdy returned to Superior, after an extended visit in Los Angeles, California.

Mrs. Frank Hathas, of Hanna, visited with her parents, Mr. and Mrs. P. Chaussart on "C" Hill.

Mrs. R. H. Sanders and Mrs. R. Robinson entertained the Ladies' Guild at the Sander's home, Thursday, October 13th.

Granny Higgins, of Rawlins, Wyoming, visited old friends and relatives in Superior the latter part of September.

Miss Phyllis Hansen was a patient at the Wyoming General Hospital at Rock Springs, during the month, as was also Mrs. Pete Chaussart. Both are now home and getting along nicely.

Mrs. O'Connell entertained the Bridge Club at her home on "B" Hill. Prizes were won by Mrs. R. Robinson, first; Mrs. Droege, second; and Miss Sanders, the guest.

Mr. and Mrs. Louis Kladianos are the proud parents of a baby boy arrived October 3rd. Mr. and Mrs. Richard Haag of "B" Hill are also rejoicing over the arrival of a baby girl.

Mrs. Scott entertained her Bridge Club on October the 6th. Prizes were awarded the following: Mrs. R. Robinson, first; Mrs. C. A. Sheets, second; and Mrs. Purdy the guest.

The many friends of Mrs. Thomas Smith are glad to learn that she is back in Superior after spending the month in the Hospital at Rock Springs.

Mr. and Mrs. R. R. Knill moved to Rock Springs the first of the month. Mr. Knill is now with the Engineering Force headquarters in Rock Springs.



Audrey Spence, daughter of Mr. and Mrs. Wm. Spence, Winton.

The Ladies' Guild gave a shower in honor of Mrs. P. C. Hagenstein's new baby, Paul, Jr. The baby received many pretty gifts.

Mr. Nie Mettam and family left last month for California where they will locate. The move was made on account of Mr. Mettam's health.

Mr. Fred Wall spent a part of the month in Salt Lake City, Utah, where he received treatment for his eyes.

Mrs. Harry Wylam entertained the Bridge Club on October the 6th. Prizes were won by Mrs. E. Droeg, first; Mrs. P. O'Connell, second; and Mrs. R. Robinson, consolation.

Mrs. F. Whitetree entertained at a birthday party September 28th, in honor of her daughter, Katherine Jean, who was three years old. The youngsters thoroughly enjoyed themselves and Katherine received many pretty gifts.

Ida Zamboni, sixteen-year-old daughter of Mr. and Mrs. Joe Zamboni, died at the family home on "C" Hill. Her death resulted from pneumonia. The community extends sympathy to the bereaved family.

Tono

Mrs. Ray Dove entertained at luncheon, September 8, Mesdames James Colvin, Henry Cowell, Patrick Barrett and Miss Mildred Price of Centralia.

The first of fall meetings of the "Merry Wives" Club was held September 8th, at the home of Mrs. James Corcoran. A short business session was held after which cards were played for the remainder of the evening. Honors went to Mrs. Dave Davis and Mrs. Fred Planetta.

Mr. and Mrs. Hans Peterson recently entertained at their home in honor of Mr. and Mrs. Ray Dove, Mr. and Mrs. Henry Cowell and Mr. and Mrs. John Norman.

Mr. and Mrs. Stanley Haydon and children of Tacoma were recent week-end guests of Mr. and Mrs. James Sayce.

Tono Sunday School began classes Sunday, September 11th, with an attendance of thirty-five. Officers for the ensuing year were elected as follows: Edward R. Rogers, superintendent; Mrs. Earl Ash, assistant superintendent; Mae Flani, secretary and treasurer; Mrs. Al DeWilde and Fred Larson, librarians; and Miss Ruby Barber, pianist.

Mr. and Mrs. John K. Johnson were called to Port Angeles, September 10th on account of an accident to their son John. The gas on the fishing boat which he was operating exploded, badly burning him. His injuries are not believed to be serious.

Tono High School students left Monday, September 18th, for Puyallok Fair to attend the annual Western Washington Fair. The trip was made in the school trucks. Miss Clara Dahl, Miss Dorothy Arnell and Miss Florence Morrison, grade teachers, were in charge of the students.

Miss Ida Johnson is home from Seattle, where she has been spending the summer. Miss Johnson will visit her parents for a while before going to Ellensburg Manual.

Miss Ezzlin McBratney is attending the Centralia Business College. John Hill is a student at the Junior College of Centralia.

The Community Club held its first meeting of the season September 8th with thirty members present. The president, Mrs. John Porich, presided over a short business session, after which the serving committee composed of Mesdames B. Boadman, Wm. Barber, Pat Barrett, James Corcoran, Al Colvin and Todd Dove announced cards as the diversion for the evening. Prizes went to Mrs. Corcoran, Mrs. Barrett and Mrs. Dove.

The regular social meeting of the Community Club was held Wednesday, September 21st, with Mrs. Dave Davis as chairman, assisted by Mesdames Francis Flani, Jack Grimm, E. M. Hill, Minnie Johnson, Charles Larson and Oscar Johnson. The rooms of the Club House were decorated in autumn leaves which harmonized beautifully with the golden tinted walls of the room. The entertainment

was in the form of an automobile party, which was unique in cleverness. Prizes were awarded to Mrs. Hans Peterson, Mrs. Todd Dove and Mrs. Tom Warren. Three new members were admitted, viz: Mrs. Ed. Cook, Mrs. John Macki, Jr., and Mrs. Henry Cowell.

Mr. and Mrs. John Schuck on their recent vacation visited at Seattle with Mr. and Mrs. H. Dodd, a few days at Hood's Canal with Mr. and Mrs. Pete Oleson, thence to Tacoma and Portland.

Mrs. John Macki (Elma Erkkila) is again clerking in the Company Store.

The following students are enrolled in the Ellensburg Normal this year: Misses Florence Mardicott, Myrtle Brirley, Hulda Rankin and Ida Johnson; Messrs. Bill Nichol森, and Tony and George Kalkuski.

Mr. and Mrs. Fred Planetta were recent guests of Mr. and Mrs. O. H. Barton at Wilkerson.

Mr. and Mrs. William Barber were recent hosts at a dinner to Mr. and Mrs. Henry Puckett, Mr. and Mrs. J. Mardicott, Mr. and Mrs. Tom Warren, Mr. and Mrs. Al Colvin, Mr. and Mrs. Charles Larson and Mr. and Mrs. Bert Boardman.

William Hann has returned home from a Centralia hospital, where he has been quite ill for the past week.

Bill Murry is quite ill at his home here.

Mr. and Mrs. Charles Larson recently entertained Mr. and Mrs. Ernest Barber and children at Sunday dinner.

A meeting of the Home Makers Council of Tono was held September 29th with the President, Mrs. Hans Peterson, in the chair. It was decided that this division of the Council should be represented at the Council Fair, October 28th, at Freedom, Washington. Officers elected for the ensuing year are Mrs. E. C. Way, president and Mrs. James Sayce, secretary. The club plans to be very active this winter. On Thursday, October 6th, Miss Hazel Kidder of Olympia, demonstrator for the Home Makers Council of Thurston County, gave a lesson in "Paintex," and outlined the winter's program.

Mr. and Mrs. M. J. Mardicott, and the Misses Gladys and Pearl Mardicott and Sylvia Revell recently attended a house warming at the new home of Mr. and Mrs. Rockey Broncusho at Tacoma.

Mrs. William Hale graciously entertained the members of the "Merry Wives" and friends at her home, September 22nd. Honors in cards went to Mrs. J. Mardicott, Mrs. B. Holmes and Mrs. Charles Richardson. Mrs. Wilbert Friends and Mrs. John Hudson were guests. Mrs. Hudson received the guest prize.

Mrs. John Porich, Mrs. Robert Murry and Mrs. Dave Davis won prizes at a delightful card party at which Mr. Bert Holmes recently entertained for the members of the "Merry Wives" club and intimate friends. Mrs. Leonard Lockheart and Mrs. Pete Oleson, of Hood's Canal, received guest prizes.

While hunting at the "Gorge" in Skookumchuck Valley during deer season, Othur Onkst and Joe Kalkusky became separated. After several hours of fruitless searching Joe became alarmed and returned to organize a searching party. About noon of the next day, the searchers were rewarded by the appearance of Othur, who had wandered until darkness overtook him when he found a familiar camp spot where he stayed until daybreak.

Mrs. Robert Murry was a charming hostess at bridge, September 28th, to Mesdames C. F. Rankin, John Isaacson, James Sayce, Dave Davis, Fred Planetta, James Corcoran, M. J. Mardicott and Bert Holmes.

Mr. and Mrs. Frank Nelson of Seattle have been visiting with Mr. and Mrs. William Hale.

At a recent meeting of the Bible Study class, which is under the supervision of Mr. Edward R. Rogers, Mrs. William Hann was elected president and Miss Mae Flani, secretary of the class. Mrs. Edward Rogers was appointed chairman of entertainment, with Mrs. Earl Ash and Mrs. Bert Boardman assisting.

Mr. and Mrs. Horace Eggler had a visit from "Mr. Stork" September 22nd, who left in their possession a darling baby boy. Master Eggler has been named Frank William.

Mrs. George Hunter was removed to a Centralia hospital October 11th. Mrs. Hunter suffered from a stroke of paralysis.

Silver Teas

The "Silver Tea" given at the Women's Club Rooms on September 15th by Mrs. John Porich, Mrs. E. C. Way and Mrs. Bert Boardman was a delightful and gracious affair. Fall flowers were arranged about the rooms and as the autumn air was a bit chilly the lighted fire in the fireplace gave a pleasing background to the guests seated around the card tables. Honors for 500 went to Mrs. Wm. Hale, Mrs. Leonard Lockhart and Mrs. Fred Planetta.

One of the most interesting affairs of the past week was the "Silver Tea" held in the Club House, September 20th, for the benefit of the library fund. Hostesses for the afternoon were Mesdames Robert Murry, Harry Warren, Ray Dove, Hans Peterson and Tom Warren. The ladies used as decorations the dainty Michelmas daisies, asters and gladioli, which were arranged in tall vases, cunning baskets and beautiful bowls, throughout the rooms. The afternoon was spent in card playing with honors going to Mrs. John Isaacson, Mrs. E. M. Hill and Mrs. Charles Richardson.

The following Tuesday, September 27th, Mesdames R. Rogers, Charles Larson, T. J. Brean and Earl Ash entertained with another "Silver Tea" to replenish the library fund. The assembly room of the Club House was cheerful with its decorations of fall flowers tastefully arranged. The guests were entertained with two vocal selections by Mrs. C. H. Lormer of Centralia, and Miss Edna Spenker of the Centralia Y. W. C. A. gave an interesting talk on books suitable for community libraries. While tea was being served, Mrs. Rogers rendered several piano selections.

Several teas given by different hostesses will be held throughout the coming weeks. The money derived from the teas will be used to buy a list of the latest books by popular authors and to start a rental book collection for the new library, which was established in June and is open twice weekly. The librarians are Mrs. E. C. Way, Mrs. Bert Boardman and Mrs. Earl Ash. The Home Extension Club is responsible for this new interest.

Ladies First Aid Meeting

The members of the Ladies First Aid Club met October 11th for their opening session of the winter months with Mrs. William Barber and Mrs. Ernest Barber as hostesses. The evening was devoted to First Aid practice and election of new officers for the ensuing year are as follows: Mrs. William Barber, president; Mrs. Charles Larson, secretary; Mrs. Tom Warren, treasurer; Mrs. E. C. Way, re-elected advisor; Mrs. James Corcoran, Mrs. Earl Ash and Mrs. Bert Boardman as a committee for the famous scrap book; Mrs. E. C. Way and Mrs. Dave Davis as corresponding committee. Mrs. Edward Rogers was admitted as a new member.

Safety Chapter Meeting

Members of the Tono Safety Chapter No. 170, assembled October 12th at the Club House for the opening meeting of the coming year. An interesting meeting was presided over by Vice President Bert Boardman.

A very different and educational program was outlined for this year's work in the form of divisions; each division will have a space on the program for each meeting. Mrs. E. C. Way was appointed chairman of the division "Topics of the Day," Dave Gilfillan chairman of the musical division and Fred Pontin will take charge of the First Aid division. The remainder of the evening was spent in group singing. The serving committee was composed of Mesdames S. Corcoran, B. Conger, M. Hann and J. Colvin.

Mr. and Mrs. E. R. Rogers registered as new members.

I am The Office Duster

"Creation's Lord we
give Thee thanks
That this, Thy world,
is incomplete,
That battle calls our marshalled
ranks,
That work awaits our hands and feet."

The wife of a careless miner is almost
a widow.

H. H. HAMBLIN, Tekamah, Neb.

We're going to have turkey for
Thanksgiving all right but just now we're en-
joying goose.

NING WILLIAMS, JACK SMITH.

If you want to see some folks thankful for a new fire-
place come to our town.

RELIANCE WOMAN'S CLUB.

Have you heard about the Scotchman who went to a
Thanksgiving dinner and —

MR. PRYDE.

Fresh Air! There's lots of it. Get your share and be
thankful.

THE DOCTOR.

If you want to see someone who's thankful for news
sent in on time, call on —

THE DUSTER.

Let us dream of the great to-morrow.
But it's made in just one way,
For every great to-morrow
Is built on a great to-day.

Rock Springs Drug Co., Inc.

R. W. CALDWELL, Prop.

"Courtesy and Service"

Near Your Home

222 Pilot Butte Ave.

Phone 254-W

Rock Springs, Wyo.

Let's be thankful for our First Aid Club.

JAMES HEARNE, Hanna.

H. says that we should be thankful that _____.

ANNA BAIRD.

Canada is a great country but Hanna suits me.

MR. BUTLER.

I might be, then again I might not—be thankful.

ALICE BELL.

Tono feasts.

Tono feasts.

The deer season brought, vie Messrs. Johnny Monaghan, Perry Rickardson, John Hudson and John Poric, deer meat aplenty.

And Tono would like to have a nice large derrick sent to help poor "Molly" who goes hunting with about 2,000 pounds of buck shot.

Whoops! Tono still feasts. More hunting parties include Jimmy Corcoran, Todd Dove and Earl Johnson. All thankful.

TONO CORRESPONDENT.

Everybody's Doing It—So Here's Ours

"Noo," said Macswich, the autocrat of the little Scottish school, "ye'll recite that poem afore the class, Wullie Macsnortle, an' see that ye gie it in perfec' English."

The youthful William declaimed with such ability that the teacher was moved almost to tears. He even rewarded the diligent scholar with a halfpenny.

"It wis weel dune," he said; "near as weel as I could hae dune it maeself. Macalister, we'll hear ye next."

The recitation of Macalister was given in even more perfect English than the last. The dominie was delighted.

"Laddie," said he in an ecstasy of satisfaction, "if I had that baw-bee back again I'd gie it tae ye!"

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